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ASSOCIATION OF COLLEGES OF PHARMACY

"The success of the educational program in the training of pharmacists is largely dependent on the extent and degree which the program provides for making full use of the fundamental sciences on which pharmacy is founded."—Troy C. Daniels.

Volume VIII

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THE AMERICAN JOURNAL
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Volume VIII

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Programs of the Cleveland Meetings

The American Association of Colleges of Pharmacy

Forty-fifth Annual Meeting

Cleveland, Ohio, September 7-8, 1944

President, Forest J. Goodrich
Vice-President, Henry S. Johnson
Secretary-Treasurer, Clark T. Eidsmoe
Chairman of the Executive Committee, B. V. Christensen

WEDNESDAY, SEPTEMBER 6

2:00 P. M. Meeting of the Executive Committee.

THURSDAY, SEPTEMBER 7

9:00 A. M. Conferences of Teachers.
1:00 P. M. First Session.

FRIDAY, SEPTEMBER 8

9:00 A. M. Second Session.
1:00 P. M. Meeting of the Executive Committee.

Sessions of the Association

FIRST SESSION, THURSDAY, SEPTEMBER 7, 1:00 P. M.

1. Roll Call.
2. Appointment of Committee on Resolutions.
3. Appointment of Nominating Committee.
4. Appointment of Auditing Committee.
5. Address of the President, Forest J. Goodrich.
6. Report of the Secretary-Treasurer, Clark T. Eidsmoe.
7. Report of the Executive Committee, B. V. Christensen.
8. Reports of Standing Committees:
 - (1) Committee on Relation of Boards and Colleges, Henry S. Johnson.
 - (2) Committee on Libraries, Charles O. Lee.
 - (3) Committee on Activities for Alumni, Thomas D. Rowe.
 - (4) Committee on Problems and Plans, Rufus A. Lyman.
 - (5) Committee on Educational and Membership Standards, L. David Hiner.
 - (6) Delegates to the American Council on Education, B. Olive Cole.
 - (7) Committee on Pharmaceutical Research, E. V. Lynn.
9. Address, The National Pharmacy Committee on Public Information, Inc., E. Walton Bobst, Chairman.

10. Reports of Special Representatives:

- (1) American Foundation for Pharmaceutical Education, Ernest Little.
- (2) National Drug Trade Conference, Ernest Little.
- (3) Druggists Research Bureau, Paul C. Olsen.
- (4) Delegates to the House of Delegates of the American Pharmaceutical Association, Robert C. Wilson.
- (5) National Wholesale Druggists Association, Charles W. Ballard.
- (6) National Association of Retail Druggists, Earl R. Serles.

SECOND SESSION, FRIDAY, SEPTEMBER 8, 9:00 A. M.

1. Reports of Special Committees:

- (1) Committee on Predictive and Achievement Tests, Charles C. Netz.
 - (2) Committee on Professional Relations, Perry A. Foote.
 - (3) Committee on Distributive Education, Earl R. Serles.
 - (4) War Emergency Advisory Committee, A. G. DuMez.
 - (5) Committee on Scholarships, Robert C. Wilson.
 - (6) Post War Planning Committee, Robert C. Wilson.
 - (7) Committee to Study Nature and Extent of Pharmacy Training in the Armed Forces, Earl R. Serles.
 - (8) Committee on Formulation of Policy for Awarding American Foundation for Pharmaceutical Education Scholarships, G. L. Jenkins.
2. Report of the Editor of The American Journal of Pharmaceutical Education, Rufus A. Lyman.
 3. Film—Pharmacy as a Profession, Edward T. Williams.
 4. Report of the Historian, George Urdang.
 5. Report of Committee on Resolutions.
 6. Report of Auditing Committee.
 7. Miscellaneous Business.
 8. Election of Officers.
 9. New Business.
 10. Executive Session.

Conferences of Teachers*

Pharmacy

THURSDAY, SEPTEMBER 7, 9:00 A. M.

Chairman, Louis W. Busse
Vice-Chairman, Elmer M. Plein
Secretary, Charles O. Wilson

* The four Teachers' Conferences will hold a Joint Meeting the last hour of the Thursday morning session to discuss the work of the Special Committee on Teachers' Conferences.

Appointment of Committees:

Nominations

Resolutions

Chairman's report.

Papers and discussions:

1. "Critical Evaluation of the Accelerated Program," C. O. Lee.
2. "Compounding Aids in the Post-War Curriculum," Gordon A. Bergy.
3. "Influence of Modern Therapeutic Agents Upon Pharmaceutical Practice," John F. McCloskey and E. J. Ireland.
4. "Rehabilitation Studies in Dispensing for Returning Registered Pharmacists," Thomas D. Rowe.

Report of Committees:

Resolutions

Nominations

Installation of Officers.

Adjournment to Joint Session of Teachers' Conferences.

Chemistry

THURSDAY, SEPTEMBER 7, 9:00 A. M.

Chairman, Arthur E. James.

Vice-Chairman, Ole Gisvold.

Secretary, Ray S. Kelley.

The Conference will be devoted to a symposium on that part of the Pharmaceutical Syllabus dealing with Chemistry, with the emphasis on Quantitative Chemistry.

Pharmacognosy and Pharmacology

THURSDAY, SEPTEMBER 7, 9:00 A. M.

Chairman, L. W. Hazleton.

Vice-Chairman, L. D. Hiner.

Secretary, Ralph F. Voight.

1. "A Proposal for Modification of the Biological Assay Laboratory Requirement of the Pharmaceutical Syllabus," L. W. Hazleton.
Discussion: H. G. O. Holck and Curtis Waldon.
2. "How to Rate a Student's Ability to Do Graduate Work in Pharmacognosy and Pharmacology," Frank Maher.
Discussion: E. R. Serles and E. B. Fischer.
3. Discussion of the work of the Committee on Teachers' Conferences, J. F. McCloskey.

Pharmaceutical Economics

THURSDAY, SEPTEMBER 7, 9:00 A. M.

Chairman, Lawrence Ferring.

Secretary, Joseph H. Goodness.

Address of the Chairman, Lawrence Ferring.

Post War Plans for Pharmaceutical Economics in Colleges of Pharmacy, Part I, Joseph H. Goodness.

Post War Plans for Pharmaceutical Economics in Colleges of Pharmacy, Part II, George F. Archambault.

Other titles to be announced.

American Institute of the History of Pharmacy
Fourth Annual Meeting

To Be Held at Cleveland, Ohio, on Friday, September 8, 1944,
at 2:30 P. M.

PROGRAM

1. Report of the President.
2. Election of an officer (third Vice President) and one member of the Council.
3. Report of the Director.
4. Report of the Treasurer.
5. Miscellaneous.

The *general meeting* is open to everyone interested in the work of the American Institute of the History of Pharmacy. It will be preceded by a *meeting of the Council*.

American Pharmaceutical Association
Tentative General Program

Cleveland, Ohio, September 7-9, 1944

Plant Science Seminar—September 5-6.

WEDNESDAY, SEPTEMBER 6

- 9:00 A. M. American Council on Pharmaceutical Education.
11:00 A. M. Meeting Council, A. Ph. A.
8:00 P. M. Executive Committee, A. A. C. P.
8:00 P. M. Executive Committee, N. A. B. P.
8:00 P. M. Officers and Regional Directors, Amer. Col. of Apothecaries.
8:00 P. M. Executive Committee, Amer. Society of Hospital Pharmacists.

THURSDAY, SEPTEMBER 7

- 9:00 A. M. Teachers Conferences, A. A. C. P.
- 9:00 A. M. N. A. B. P.
- 9:00 A. M. American College of Apothecaries.
- 9:00 A. M. American Society of Hospital Pharmacists.
- 9:00 A. M. Conf. Pharm. Assoc. Secretaries.
- 1:30 P. M. A. A. C. P.
- 1:30 P. M. N. A. B. P.
- 2:00 P. M. American College of Apothecaries.
- 2:00 P. M. American Society of Hospital Pharmacists.
- 2:00 P. M. Conf. Pharm. Assoc. Secretaries.
- 6:30 P. M. Dinner, A. Ph. A. and Affiliated Organizations.
- 8:30 P. M. First General Session.

FRIDAY, SEPTEMBER 8

- 9:00 A. M. A. A. C. P.
- 9:00 A. M. N. A. B. P.
- 9:00 A. M. American College of Apothecaries.
- 9:00 A. M. American Society of Hospital Pharmacists.
- 9:00 A. M. Conf. Pharm. Assoc. Secretaries.
- 1:00 P. M. Luncheon, Kappa Psi Fraternity.
- 1:00 P. M. Luncheon, Phi Delta Chi Fraternity.
- 2:30 P. M. Council, Amer. Inst. for the History of Pharmacy.
- 2:00 P. M. First Session, House of Delegates.
- 3:00 P. M. Conf. of State Pharm. Assoc. Secretaries.
- 4:00 P. M. Meeting, Committee on Nominations.
- 4:00 P. M. Meeting, Committee on Resolutions.
- 6:00 P. M. Dinner and Annual Meeting, Rho Chi Society.
- 8:00 P. M. Scientific Section and Sections on Education and Legislation, Practical Pharmacy, Pharmaceutical Economics and Historical Pharmacy.
- 8:00 P. M. Conf. of State Pharm. Assoc. Secretaries.

SATURDAY, SEPTEMBER 9

- 9:00 A. M. Breakfast and Business Session, Women's Auxiliary.
- 9:00 A. M. Second Session, House of Delegates.
- 10:00 A. M. Conf. of State Pharm. Assoc. Secretaries.
- 2:00 P. M. Final Session, House of Delegates.
- 8:30 P. M. Final General Session.

SUNDAY, SEPTEMBER 10

- 9:00 A. M. Council, A. Ph. A.

The Hotel Cleveland has been selected as headquarters. Rates for single rooms range from \$3.25 to \$7.00 a day. Other hotels are the Carter, the Hollenden and the Statler. The prices are approximately the same. Hotel and railroad reservations should be made at once.

Plant Science Seminar

The 22nd annual meeting will meet at Cleveland on September 5-6, 1944. Dean Franklin J. Bacon will be host to the Seminar.

TUESDAY, SEPTEMBER 5

- 10:00 A. M. Registration—School of Pharmacy
- 11:00 A. M. Opening Session
- 12:30 P. M. Lunch
- 1:30 P. M. Sessions of Seminar
- 4:00 P. M. Visit Cleveland Museum of Art, Fine Arts Garden and Garden Center
- 6:00 P. M. Dinner
- 7:30 or
- 8:00 P. M. Welcome (by President, Vice-President or Dean of the Graduate School)
Speaker—Ecology of the Cleveland Area

WEDNESDAY, SEPTEMBER 6

- 9:00 A. M. Field trip at Squire Valleevue Farm
Village of Hunting Valley
Trip through Botanical Garden
- 12:00 A. M. Box Lunch at Farm
- 1:00 P. M. Trip through Northern Ohio, Beech Maple Forest
(Women may remain at Farm for cards if they wish.)
- 4:00 P. M. Return to City
- 8:00 P. M. Final Business Session

Pharmacy and the American Association for the Advancement of Science

There will not be a Subsection Program for Pharmacy at the American Association for the Advancement of Science meeting in Cleveland in September. The reason for this is that our Association meets just the week before the American Association for the Advancement of Science and all persons with work in pharmacy to report will have an opportunity to submit their papers to the Scientific Section. There did not seem to be any way in which we could combine our Scientific Section with the American Association for the Advancement of Science program to advantage.

We expect to resume meetings of our Subsection at the mid-winter meeting.

Purdue University
July 7, 1944

GLENN L. JENKINS,
Chairman, Pharmacy Subsection,
A. A. A. S.

Toward World Democracy*

MILTON S. EISENHOWER

President, Kansas State College

I

We have met today to honor individual scholars. Hence we must assume a common, deep interest among us in the life of the mind.

We may explore together, therefore, the quality of the thinking of all men everywhere, particularly on some of the vexatious problems of our time.

I want you to follow me in what essentially will be an argument dealing with the progress men are making, in their minds, their planning, and their actions, toward what I shall call "world democracy."

"Democracy" has become a slogan, a catch-word, for whatever brand of social or political theory happens to be favored by the person using the word. I shall use the word to mean government of the people, by the people, for the people—government in which basic power is retained by the people and exercised by them either directly or through some system of representation. And when I speak of "world democracy" I mean a society of nations, each of which recognizes that the final authority in its government rests with the individual citizens living under it, each nation having achieved a degree of actual working democratic organization compatible with its individual culture, and each recognizing in both theory and practice that its welfare is bound up with the welfare of all other nations.

This definition of world democracy does not imply that every nation must pattern its democratic forms precisely on those which happen to be suited to Americans or Englishmen. It does not imply that every nation must have the same degree of democracy—for the degree of democracy which any nation achieves must, if it is to endure, be compatible with the total culture of that nation. Certainly it would be absurd to expect

*Honors Day address delivered at the University of Nebraska, April 18, 1944.

North Africa, with its Mohammedan religion and its pre-industrial society, to spring tomorrow into a political organization patterned along the lines of American democracy. The cultural differences between the peoples of different nations *must* be recognized as important factors in the growth of national democracies and in the development of new forms of cooperation between them.

Despite current slogans, yes, and charters, no matter how useful they may be, it must be clear to any thoughtful person that world democracy will not be achieved in our time. The obstacles are too many and too complex for one generation to surmount. But we can, in our time, overcome some of the more serious obstacles that now stand in the way.

Now, the greatest obstacle to the attainment of any cooperative human undertaking is lack of mutual understanding. It is not uncommon to find great economic groups in our own American society bitterly fighting one another—though their interests be interdependent—because each continues to reason—to think—too exclusively within its own compartment or interest-sphere of our society. So it is not surprising that the first great obstacle to the establishment of world democracy will be the lack of a mutual understanding among the peoples of the earth.

Mutual understanding, growing out of objective consideration of relevant evidence, is the cement which must be used to build the foundations of world democracy. At first, that foundation will inevitably be weak, an uncertain agreement among men, easily broken by violence. Much later, the cement will harden into a community of interests and essential ideals.

And that cement itself is a compound of two elements. One is a physical communications system, along which accurate information and ideas flow freely. It consists of tangible things like newspapers, radios, automobiles, airplanes,—all the physical media by which the transportation of men, knowledge, and ideas from one nation to another is achieved. The other consists of intangible things. It consists of ideas, value-judgments, basic mental processes which yield comprehension and wisdom.

It may be that the historic task for you and me is to go

into action and mix this cement (and I hope you'll forgive me if I'm overworking my metaphor). It may be that the great opportunity of our time is the scientific compounding of these tangibles and intangibles, pouring the mixture into molds, and when the cement hardens, laying the first few blocks in the foundation for world democracy. It is imperative that no less than this first step toward permanent world peace be taken in our time.

At any rate, it is this aspect of our progress toward world democracy I want to talk about today. I want especially to talk about such a simple, understandable thing as the world communication system which has been developed in the United Nations war effort, about how this system may be used for the development of world understanding.

II

Here, perhaps, is a paradoxical truth: This very war, more violent and widespread than any previous war, is itself evidence of progress toward world democracy. For this war has demonstrated that the world can no longer exist "half slave and half free." This cement I spoke of, this development in communications, has made Lincoln's great phrase, applied in his time to only one nation, obviously applicable to the whole world. The world is already so closely knit, so small that injustice and violence in any part of it soon will, if they continue unchecked, involve all peoples. The world grows conscious of itself *as a world, one world*, with conceptions of world democracy sprouting in the minds of people everywhere—in China, in England, in Russia, in America—yes, even in the Japan of Kagawa and the Germany of Thomas Mann.

There is another phase of the paradox: Though the war has split the world into factions between which there can, for the time being, be no real communication, the total amount of international communication has been increased enormously while the war is in progress. Among the United Nations, we have developed means of communication which, if wisely employed, may help to build that mutual understanding which is a specific prerequisite to world peace. We who fight for a free world have come to realize that only an informed people

can be free, and that information must be employed with wisdom by ordinary men and women if a free world is to be.

Surely it must be clear by now that a few diplomats, exchanged among nations, cannot guarantee world understanding or world peace.

Historically, diplomacy has been largely a "hush-hush" matter. Only rarely have citizens (whose judgments are paramount) been adequately informed of what their international representatives were thinking or saying or promising. When the people were informed, it was usually too late for them to do anything about it. The crisis had occurred.

The recent publication of the "White Paper" about American-Japanese difficulties occurred *after* we were at war with Japan. To most Americans the sneak attack on Pearl Harbor came as a shocking surprise. But the publication of the "White Paper," a short time thereafter, let us know that the attack was no surprise to a few officials who had seen it coming for years.

However, if all official negotiations between nations were handled openly, we still would not approach the type of understanding essential to world peace and a permanent world democracy. For ultimate decisions in each democracy are made by millions of citizens through their elected representatives. And how can millions of Americans make intelligent decisions about our relations with India or Russia, or Yugoslavia or other countries unless they understand those countries? And how can millions of Chinese or Indonesians or Norwegians make intelligent decisions about agreements with a people in America unless they know America?

Yet is it not true that one of the requirements of permanent peace is that kind of broad understanding among millions of democratic peoples which will yield reasonable working agreements between their countries? Diplomats and governments, in the long run, can agree to only those things their people will support.

III

Let's look at this problem for a few moments from the American point of view.

Do other countries, or did other countries before the war, really know us Americans as a people? Did they understand our customs, our attitudes, our aspirations, our ways of doing things?

I'm afraid they did not even begin to do so.

When I was in the foreign service, a lovely Scottish lady came to my office and said she wished to register her son for emigration to the United States. I pointed out that he had been registered for nearly a year, also that his serial number would be reached soon. "Oh, no," she said. "On his previous application he said he wanted to go to New York. Now he wants to go to the United States!" On another occasion, I asked an Edinburgh lad what he was studying in school about America. "Why, nothing," he replied. "There's really nothing significant to study, is there?" And he hastened to ask me, in all seriousness, "Is it true that when American lads go to church they always say 'oompah, oompah' before they go to their pews?" Most Europeans think everything west of Chicago is one immense ranch, bossed by cowboys with big hats, who occasionally, just for the fun of it, hunt out an Indian tribe and shoot it up.

These examples seem humorous—but they certainly are not. I encountered the lack of knowledge again, in a far from humorous form, during my tenure of service with the office of War Information. I was continually astounded at ideas other peoples have about America and Americans.

One general notion abroad is that Americans are smug, selfish, enormously wealthy through no merit of our own, childlike in our mental processes, and incurably frivolous in our outlook upon the world. There may be a modicum of truth in some of this—enough to make us squirm. But by no means is it the whole truth. Left out of such a conception are all the essential American traditions and ideals—the spiritual America which is self-critical, generous, brave, imaginative, and deeply serious in its purposes—the America which is committed to a dream of liberty provoked by such great and good men as Washington and Jefferson and Lincoln.

Why is it that this real basic America is not understood abroad? Perhaps the answer may be found in the ways by which the rest of the world learns to know us.

Before the war, the most powerful single media which interpreted America to the world was the Hollywood motion picture. Pictures speak a universal language, and a naive one. Indians, Chinese, Middle Easterners, Africans, South Americans, and most Europeans have come to see us as Chicago gangsters, as night club habitués, as a people who ride in mile-long motor cars, live in palaces and never work, and as a people determined to achieve a superficial glamour.

With this sort of image persistently in their minds, peoples of other countries have had their notions reinforced by some of the American tourists who roamed the world between the wars. In the 1920's, as many as 200,000 Americans visited Scotland each year, for example. Most of these people were cultured, well-mannered, and orderly. They went unnoticed. But enough were of the braggart type, loud and provincial, to attract a great deal of attention. I saw some of them myself, and they were not especially pleasant. The Scottish people thought them typical.

Even our American press associations, the best in the world, have not presented us accurately to other nations. Why should they?, some may well ask. A press association cannot succeed commercially with a program of promoting true understanding of the full sweep of American life. Of course, our press associations reach only a portion of the globe. They go only where it is profitable to go. Vast portions of the earth have received no American news service at all. India, for example, was served only by Reuters, the British news agency; and does anyone believe that Reuters has accurately represented us to the Indians? North Africa has been served by the French news agency, Havas. Other areas have been served by Domei, DNB, Tass. Naturally, most countries prefer the reporting of their own press associations, just as we like to obtain the bulk of our news of other countries through our American press associations.

But even the areas served by our own news services abroad have by no means been given a well-rounded picture of America and American life. News material sent abroad has been fragmentary, lifted out of the context of our daily life. A dispute over poll taxes, news of a lynching or race riot, an account of strikes or a trade-union dispute, or reports of the most controversial aspects of a presidential election get a big

play on the overseas wires. But the world obtains little or nothing from our press associations about our schools, our churches, our folksongs, the workings of Congress, the progress of labor, the culture of rural America, our colonial policy, our great regional differences.

The only peace-time organized effort I know of to present the United States accurately to other countries was initiated in the thirties under Nelson Rockefeller's direction. Committees of American residents in South American countries were organized, supplied with accurate, down-to-earth material, and then encouraged to use every method they could to picture the United States as it really is. This program was designed partly to combat Axis propaganda and partly to erase the Hollywood conception of America. The true, full story of America, after decades of ill-famed dollar-diplomacy, badly needed telling down there.

To this list of our past communications with other nations, I should add a few miscellaneous items. The chief of these, I think, has been American books—particularly American novels. In the period between the wars, when creative thinking was snuffed out in country after country, American novelists assumed a position of world leadership.

Unfortunately, however, the American writers who have been most widely read abroad have been those who fitted in with foreign preconceptions of the United States. Sinclair Lewis' "Babbitt," for instance, had an enormous vogue in England and France and Germany. Despite their validity as works of art, these books may not have done much to create a genuine understanding of America, or to create good will *for* America.

Other miscellaneous items include short-wave radio and limited exchanges of professors and students. Some American magazines have developed substantial circulations abroad—though when I tell you that the principal ones circulated abroad have been Readers Digest, Time, and Life, you will perhaps agree with me that the representation of America through magazines leaves much to be desired.

And that practically exhausts the list.

When we entered this war, it was at once obvious that

something had to be done and done fast. Lacking fundamental understanding of one another, we could scarcely expect Allies to hold together for the war's duration and in the post-war reconstruction period. We could not persuade the neutrals to remain neutral or to come over to our side unless they knew us and knew what we intended to do if we should win the war. We could not expect the peoples of occupied countries to keep up their hope of liberation, to resist the collaborationists in their own countries, to be organized and prepared to help us at the vital time unless they knew what we were up to, what we stood for, and what our chances of winning might be. And we knew we could not weaken our enemies from within if the only knowledge they had about this war—its purposes and its progress—came from their own governments.

So America rolled up its sleeves and for the first time in its history built a world-communications system—one that soon enabled her to reach every corner of the globe. This system is made up of short-wave and medium-wave radio, cables, radio photo-circuits, point-to-point transmission, recordings, documentary films, airplane leaflets, magazines. The information materials flowing through this system are selected or prepared by government workers.

The story of the operation of this system is too lengthy and complex to tell here. So let us merely glance at the effect it is having in a few countries.

By short and medium wave, the "Voice of America" is now circling the earth at the rate of five hundred separate programs a day, often in 42 different languages. These radio programs, along with airplane leaflets, have reached the peoples of enemy countries, Italians among them. American military leaders, seeing their value, called for greater and greater coverage. And the "Voice of America," invariably telling the truth in the conviction that the truth will make men free, persuaded many Italians that Fascism should be overthrown. We have the testimony of Italian soldiers and civilians to that effect.

But this phase of the task—involving enemy countries and usually called psychological warfare—is not as significant in long-time perspective, I think, as that which has to do with

occupied, allied, and neutral countries. Here a more fundamental, more truly educational job has been done.

Early in the war nearly 90 per cent of the foreign news in the Turkish press was of Axis origin. It would not have been surprising if the Turkish people had thought that an Axis victory was inevitable and that the peoples of the "decadent" democracies, bitterly divided, would accomplish nothing. Today, practically all of the foreign news in the Turkish press is of Allied origin—carried there by the American communications system. And the 15,000 words of news a day is not all about the war. The Turkish people are learning about our baseball games, about the ordinary, every-day workings of our democracy, about our production methods, and about our ideals and our peace aims.

Swedish journalists were brought to this country by the American government and given free-roving assignments. They were told they could write what they pleased for our cables to carry to Stockholm. These journalists traveled up and down the land, visiting large cities and small towns, farms, universities and colleges, churches, and local discussion groups. They wrote columns of copy every day, interpreting America as they saw it. In the early days of this war the Swedish press was pro-Axis, not in spirit perhaps but in a reluctant admission of belief in the inevitability of a German victory and the permanent establishment of a Nazi new order in Europe. All this is now changed, and quite recently the German foreign office charged the Swedish press with "a lack of objectivity."

Russians are fighting on a 2,000-mile land front. They do not see what we are doing on the oceans, in the air, on the Pacific islands, and in the Mediterranean. It is understandable that they should think they are fighting the war alone. Radio photos of the great Allied victory of the Bismarck sea and of the first Allied ships steaming through a liberated Mediterranean appeared in the Russian press within 24 hours after those events took place. Daily, by cable, American news has gone to Moscow and from there to the Russian people, accomplishing two things: The Russian people have been given some idea of the global, interdependent nature of this war, and they have gained a new insight, as yet only slight.

into the real America. Without some true understanding of things as they are, such conferences as those at Moscow and Teheran would not have been possible.

I spoke of the fact that American news did not reach India prior to this war. Today, about 10,000 words of American news go directly to India by cable each day and much of it is carried in more than 500 English and vernacular newspapers. Even when the American press was critical of the British policy toward India, this news was carried along with the rest. A balanced, true picture, in the news sense at least, is gradually spreading in India.

Prior to this war, British schools did not teach American history. I've mentioned the Edinburgh public school lad who thought there was "nothing significant" to study. Today American history is taught in British schools. Today, many of the 8,000 philosophic societies and discussion groups in Britain obtain simple documentary films from American universities, governmental agencies, and industrial firms, project these on the screen, and then hold informal discussions about what they have seen—discussions about flood-control, erosion control, transportation, a rural American town, the life surrounding a rural church, all nationalities working in American factories. For the first time, the British people are beginning to see the true, simple, thoughtful, generous America. And, with greater understanding, malicious rumors instigated by the Axis radio about this country and its policies, do not spread as they once did.

After the fall of France in 1940, the Vichy government saw to it that the people of North Africa learned only what Germany wanted them to know. For two years an intellectual blackout was imposed upon Arabs, Berbers, French, and others in North Africa. When the Allied armies invaded, many North Africans were surprised to learn that the United States had entered the war. Few knew why we were there, and were therefore suspicious of us. Some were hostile, some were friendly, most were distrustful. They had never heard of the Atlantic charter but they had heard that this was a war of conquest by the Allies. They had been convinced that an American ship could not pass through the nests of Nazi U-boats in the Atlantic. A flood of press-wireless news soon

filled their newspapers. Documentary news, and selected-entertainment films filled their theatres. Radio programs poured into their homes. The intellectual blackout was finished. Tranquility settled behind the lines of our military forces.

To sum up: For military purposes, this nation has built an efficient communications system that today reaches every corner of the globe with truthful information. By no means is it perfect or complete. In war, no one would expect it to be. But to some extent it has displaced the curious notions created by Hollywood and to a very great extent it is helping the Allies win this war.

IV

What will happen when the war ends?

Clearly we do not want government control of world communications when we are again at peace. Yet neither do we wish to retreat to the situation existing before the war.

Let us consider several suggestions, one of which at least already has some support in this country. We must insist that the peace treaty (if there is a treaty) provide for a free press, free radio, and free speech in all countries and we must positively guarantee these as simple, inalienable rights; for freedom in learning, thinking, and speaking constitutes the greatest single difference between democratic and totalitarian systems. Nothing so hinders the life of the mind and therefore of true social progress as government control of the flow of information and ideas within a country, or between countries. Of course, the free press in each country must be a responsible press—managed by individuals of high ethics and a deep sense of obligation to free society. The basic criterion of the free press must be the furnishing of accurate information and interpretation to all the people. The criterion of reader-interest is insufficient—and dangerous. The democratic system, which presupposes that people generally will act with wisdom and fairness if they have the information relevant to sound decisions, is terribly dependent on how those who control communications actually redeem their high responsibilities.

The second need is, of course, a generous exchange of honest information between the different countries. To the extent that it is commercially feasible, privately-owned press associations should arrange for news exchanges with other countries, financing the projects themselves. They can surely do this in a more enlightened way than they have in the past. Perhaps the incentives will be greater in the future. Now that we are conscious of the oneness of this world, we, as readers will no doubt demand better world coverage than we have heretofore had. And other countries, having learned to know us a little better, will show greater interest in a regular flow of information from America.

There will continue to be areas to which privately-owned press associations cannot go without financial aid, at least for a time. To reach them, the governments of the various democratic countries should grant such subventions to press associations as may be needed. This is the cheapest way to promote international understanding and help sustain democracy throughout the world. If it is unprofitable for our press associations to go into India, or China, or Africa or anywhere else, then we can afford to subsidize the needed extensions, just as we now subsidize airlines through airmail contracts. We can hardly afford not to.

Third, I believe I would go still further. I would ask American magazine publishers and film producers to pool their resources in issuing and circulating throughout the world new types of magazines and documentary films seeking to portray American ideas, ideals, developments, and problems as they actually are, in cross-section. I would have the government subsidize these undertakings by guaranteeing to cover losses, as we have already done in working with South American countries.

We must remember, of course, that communication is of little use unless it is two-way. It is not enough for other peoples to understand us; we must also understand them. We must avoid smugness and complacency in this. There isn't the ghost of a chance of maintaining world peace unless we can achieve a mutual understanding, or unless we deal with the rest of the world understandingly, tolerantly, and with justice.

V

The arrangements contemplated would make the establishment of dictatorships much more difficult. But such arrangements would not automatically guarantee world peace. Free interchange of information is a first step, nothing more. There are economic, political, educational, social, and other problems of enormous proportions for the enlightened mind of men to study and solve.

I have said that the democratic system presupposes that people generally will act with wisdom if they are adequately informed. Let me now emphasize that a free, responsible press in each country and a perfect interchange of information would not *teach* us wisdom. They alone could not inculcate the ability to discriminate, to judge people, institutions, circumstances, and events by standards of fairness and goodness. The development of wisdom is not a primary function of the press, but of homes, schools, and churches.

This leads me, in conclusion, to something I must say about the part education must play in laying the foundations of world democracy.

First let us relate two ideas which are, basically, two aspects of one truth. These are the idea of peace and the idea of freedom. Freedom implies peace. Slavery implies force, and therefore violence. Only free peoples have a primary desire for peace. An enslaved people desires peace only secondarily. Their first desire is to throw off the chains which bind them. Their first necessity is to fight for rights they do not have. By their enslavement, they are denied the possibility of working peaceably for their rights—and this means that wherever slavery of any kind exists *there* exists the possibility, if not the inevitability, of violence.

Second, when you and I say that only an informed people can be free, we are not saying that a well-informed people inevitably *will* be free. Freedom—true freedom—requires compounded knowledge *and* wisdom. Only truth that is employed with wisdom can make men free. Knowledge is power only if the people who have knowledge reason accurately from what they know. Lies are effective when those who listen to them have no access to the truth. They are also effective when

those who listen are incapable of distinguishing truth from falsehood. A dictatorship always takes over the press as one of its first moves. Then it takes over the school system. It employs the press to suppress the truth and spread falsehood. It employs the schools to render citizens incapable of distinguishing truth from falsehood.

Thus it is that institutions of learning must play a decisive—and I hope a glorious—part in the achievement of world democracy.

Our schools have not, so far, done what they should, or all they should. We who teach have been confused as to the purpose of teaching in this suddenly mechanized, bewilderingly complicated world. What is the confusion? How has it arisen? How can it be resolved?

Please do not regard what I have to say on this matter as dogmatic assertion. I have come but recently into the field of education, and my conclusions are humbly tentative, frequently subject to revision. But I must present my conclusions for you today, for without them my argument dangles. A world-wide communications system can lead us to world democracy only if the peoples of the world are able to think cooperatively and wisely. Schools must develop minds that *can* think cooperatively and wisely. Hence the development of a school system that does this is an essential part of our progress.

It seems to me that a basic confusion in American education has been the confusion of an information service with an educational system. Our schools have been concerned too much with the dissemination of information, too little with the development of wisdom. We have proceeded on the assumption that if we cram a wealth of information into a mind, that mind will automatically digest it and use it with wisdom and fairness.

How has this confusion arisen? My conclusion, (still tentative) is that it has arisen from the pragmatic philosophy which has engulfed America during the last half century.

The pragmatist insists that the test of a true idea is its utility. An idea is true if it works in the situation which calls it forth; it is true if it solves the immediate problem which gave rise to the idea. This means there is no *one* truth,

there are many separate truths. Truth, by this view, is relative to time and place. What is true in one situation may be false in another. What is true for one man may be false for another. Hence no real unification of knowledge, no integration of separate true ideas is possible. Would you prescribe that medicine for our warring world?

Carried into our school systems, this pragmatic view has resulted in the fragmentation of knowledge into separate, constantly narrowing specialties, among which there has been little real relation and no real unity. Carried into social institutions, this pragmatic view has created a deplorable despair of agreement among men of different cultural backgrounds, different economic status, different social and political views. Tolerance of the appeasement variety, whereby men agree only to disagree, has become a prime virtue—and this kind of tolerance is false even by the pragmatic view. It does not work. It ends, as our appeasement of fascism ended, in violence.

To remove this disastrous confusion, we must replace pragmatism by something we might as well call idealism. (It will be called that anyhow.) The idealist does not deny the utility of a true idea, but he refuses to make utility his final test of truth. He embraces the paradox that an idea is true if it is consistent with all other true ideas. In other words, he makes consistency rather than immediate utility the supreme test.

Carried into the school system, this idealist view leads to the integration or unification of so-called separate branches of learning, without denying their superficial diversity. Such a view makes possible what, by the pragmatic view, is impossible—namely, the reduction of walls which separate specialists in one discipline from specialists in all others—for such a view asserts that no man can really understand his own specialty unless he understands its relationship to others. Indeed, it is more than a mere relationship. It is an interpretation. One area of knowledge is not separate from another.

Carried into the economic and social world, this theory promises to eliminate the walls which separate great economic groups within our own American society—walls which often make for bitterness, not understanding. And only if we

can learn in America the methods by which one group or class can see its problems, its desires, its program in relation to all other group problems, desires, and programs, dare we hope that we can learn to do likewise in the international sphere.

Certainly some such concept must guide a modern reformation of our educational system if we are to develop minds which can work cooperatively toward internal stability and world democracy. This is the challenge of our day. Either we must learn to educate people to act wisely and tolerantly in determining events and institutions, or we shall continue to train them to disagree and trust to superficial appeasements. H. G. Wells once described civilization as a race between education and catastrophe. I believe we can afford to give long, serious contemplation to his epigram.

I trust that you who have attained high scholarship and equipment of leadership in this great university will become scholarly and tolerant, but militant, leaders in the real world war for democracy that will open when present military hostilities end.

A Commencement Address*

SIMON E. SOBELOFF

City Solicitor of Baltimore

The hour has now come to visit upon you the final affliction—The Address to the Graduates.

As a lawyer I lay claim to no special qualification to offer advice to graduates in pharmacy, although in my professional work I have been interested in certain phases of the economic problems of pharmacists. My selection is the sole fault of Dean DuMez, whose invitation I accepted as a command. I recognize only one obligation—to make the ordeal swift and merciful.

My chief embarrassment arises from the fact that this occasion offers such a bewildering variety of subjects and so many possible treatments. After considerable mental anguish

*An address delivered before the graduates of the School of Pharmacy, University of Maryland, April 18, 1944.

and searching of my soul, I have decided to speak to you briefly on a subject related to your own profession. While it may impress you that my thoughts on the subject may be of slight value because of the limitations of my own knowledge, I plead in extenuation that I have at least endeavored to select a theme that will, I hope, be of interest to you.

The course of instruction in pharmacy is four years,—the same as in most schools of medicine, longer than in most schools of law; and there is a movement in certain pharmacy schools to extend the period of formal instruction to five years. There has been steady advance in the standards of pharmaceutical education. The broad range of your studies in the sciences of physics and chemistry, botany, bacteriology, pharmacology, physiology, biology and zoology, indicates that graduates in pharmacy are trained for the practice of a learned profession. Thoughtful persons have, therefore, raised the question as to whether much of this carefully educated talent is not being wasted when, as has been shown by authentic surveys, only 32 per cent to 50 per cent of the average pharmacist's time is devoted to pharmaceutical work, and the balance of his time to merchandising activities unrelated to his profession.

What is the purpose, these persons ask, of training a man carefully and at great expense of time and money to equip him for a specialized branch of the practice of medicine—for that is what pharmacy really is—only to have him spend two-thirds of his time in ordinary commerce, in which his skill is not needed? It seems a tragic waste for a man to ground himself in the medical and related sciences and then to become immersed in the operation of a sandwich counter, the dispensing of ice cream sodas, the sale of stationery and school supplies, and even such articles as umbrellas, wallpaper, lingerie and haberdashery. How much of a scholarly background does one need to match a woman's cosmetics to her personality, or to fit her into the right size beach-chair? Or, after she has been properly and comfortably seated to select scented substances to blend decorously with her romantic inclinations?

From one point of view, it may seem to be a matter of little consequence to the public whether the man who compounds prescriptions and sells pharmaceuticals also deals in articles of general merchandise; it may even appear to serve public

convenience to be able to buy pharmaceuticals and other things in the same place. But a little reflection will make it clear that for the pharmacists particularly, and for the public, too, in the long run, this practice holds certain dangers.

"Where a man's treasure is, there is his heart also." If a man earns his livelihood practicing a profession, he maintains his interest in it; he gives thought to its problems; he feels encouraged to keep abreast of the developments in his chosen calling; he continues his professional growth. In short, his professional pride is sustained and his professional morale is high. This leads to a loftier sense of his responsibilities and a deeper desire to meet his obligations.

If compounding prescriptions and selling pharmaceuticals becomes a side-line with him, he would be an unusual man, indeed, if his professional instincts were not dulled, and if his professional interest were not in the course of time submerged by the pressure of his non-professional commercial pursuits. It seems clear that both the profession and the public suffer by the de-professionalization of pharmaceutical practice. And, yet, in saying this, I realize that the problem is largely economic. It will not be solved by mere exhortation—for graduates in pharmacy and other persons of learning, culture and professional training, are not unlike the generality of mankind in their desire to eat, to clothe themselves, to support their families, and to enjoy the comforts of life. They cannot, therefore, disregard the economic factors which have brought present conditions into being. Nor would it be feasible for drug-stores at one fell swoop to forego handling general articles, when department stores, groceries, and even roadside garages handle drugs.

While schools of pharmacy have not graduated annually for the past seven or eight years more than the number needed to replace those who die, retire or change their occupation, nevertheless we had in 1940, as shown by the United States Census Report, approximately one pharmacy or drug-store for every 1,957 persons in Baltimore City, and one for every 4,276 persons in the Counties of Maryland. It has been said that one pharmacy to every 5,000 of the population could adequately supply its pharmaceutical needs. If so, we have over two times as many pharmacies as are required in Baltimore.

The average ratio of pharmacies to population in the entire United States is approximately one to every 2,270 persons. In Italy there is only one to every 4,000. Other European countries show even smaller ratios, and in Sweden they have only one pharmacy for every 15,000 persons.

Conditions, of course, vary from place to place, and there may be particular explanations in this or that country, with which I am not familiar; but it must be obvious that the only way in which Baltimore's 439 pharmacies manage to survive is by combining general commercial activities with their purely professional work, whereas in European countries the pharmacy or chemist's shop is what its name implies, and not a department store. If, as I believe, and as many more competent than I to express an opinion also believe, it is desirable to encourage members of the profession to concentrate, increasingly upon the practice of the calling for which they have prepared themselves, then consideration must be given to the following measures. I do not offer them as specifics; I merely propose them to stimulate thought and study.

First, the profession should not be further over-crowded. The number of graduates should be gradually restricted. This process can be utilized as an opportunity to raise admission requirements and to elevate scholastic standards. Indeed, the number of pharmacy schools strikes me as fantastic. There seems to be no need for 68 of them in this country. Why should each state have one or more centers for the propagation of pharmacists? I make so bold as to suggest that the American Association of Colleges of Pharmacy could render a service by devising some means of gradually reducing this number. There are in the United States 77 medical colleges and 183 law schools—which seems more than enough to supply the need. At least, it may be argued that state legal systems differ, and this tends to encourage law schools in each state; but the practice of pharmacy is substantially the same throughout the nation and it is difficult to perceive the need for so many colleges of pharmacy.

Second, even with the present number of practitioners and the existing system of the combined pharmacy and general merchandise store, a limited freedom of choice is still possible to the man with a strong inclination toward the professional ideal. That freedom of choice will be enlarged as time goes

on—as and if the number of graduates is lessened. In the meantime, a pharmacist may feel compelled to compromise with economic necessity by taking into his store certain foreign articles, but, at least in the conduct of his store he need not emphasize this type of business to the neglect of his pharmaceuticals and prescription work. There is still a substantial opportunity in true pharmaceutical practice. Last year approximately 5,300,000 prescriptions were filled in Maryland, an average of 8,400 per store. Prescriptions, there is no room to doubt, will be attracted to the pharmacist who by his physical equipment, cleanliness, conscientious accuracy, and general professional atmosphere merits such confidence.

And when an establishment gains in prestige as a pharmacy it will be able increasingly to discard its soda fountain, its candy and stationery counter—yes, perhaps even its pin-ball machine. The pharmacist can then forego the easy money—if it is easy money—from such enterprises. Let those without professional skill and competence have them, and welcome! Only in this way will the pharmacist come to be recognized as a professional rather than a business man. Let the pharmacist instead specialize in the sale of chemical products, where his scientific knowledge will aid him in transacting his business. Beside the multitude of medicines and curative agents, there is a vast field for pharmacists in the manufacture and sale of insecticides, fumigants, disinfectants; and there is an opportunity for laboratory work, especially in the country towns, but also in the city, for clinical testing, blood and sputum analyses, *etc.* Physicians who now send such work to hospital laboratories would readily refer it to the pharmacist located in the same neighborhood as the patient, if the pharmacy were appropriately conducted and showed an interest in such work. Overburdened hospital laboratories would welcome the relief, and pharmacists would be more completely fulfilling the function for which they were scientifically trained. The undertaking of such professional activities by pharmacists would compensate them for the loss of profits from the sale of banana splits, shoe laces and detective thrillers, and it would elevate their professional pride and prestige in the community.

And, of course, the retail drug-store is not the only opportunity that is offered the man trained in pharmacy. One has

but to recall that Pasteur was a member of your profession to get a glimpse of the limitless possibilities that await persons with training in pharmacy and the related sciences. Vast research organizations—both publicly endowed and in private industries—which perform a service of the first magnitude, are constantly on the look-out for men and women of scientific training and alert minds. The need of private industry for experts possessing such qualifications is ever expanding.

But freedom from the commercialism of ordinary trade is only one of the means of preserving and enhancing the professional status of pharmacy. No less important is the pattern of the pharmacist's general life as a citizen. Especially the neighborhood druggist is to a peculiar degree exposed to public scrutiny. More than the doctor, or lawyer, or dentist—perhaps more than the minister—the druggist is constantly and utterly without formality consulted at all hours every day, not only on matters pertaining to his profession, but relating to public health; political, patriotic and civic movements; private economic, personal and domestic problems. He is most accessible and, therefore, first called upon when first-aid is needed; and even when the pharmacist is removing a cinder from a neighbor's eye or helping a mother select the best talcum for her baby, he is the friend, guide and confidante who hears and helps solve a great variety of personal problems that defy exact classification but loom large in the troubled minds of his appreciative patrons. Such services, modest as they may seem, cannot be performed by an untrained store-keeper. Frequently unrequited, save by sheer gratitude, this is the stuff of which the texture of his community position and stature is woven.

If I may, without taking undue advantage of the moment, conclude with a little preaching, I should like to admonish you to remember that your college training is but the prelude; that success in the career you have chosen rests upon the same virtues and attributes which experience has found necessary to success in every vocation. Among these are honesty, intelligence, industry, skill, reliability, cleanliness, orderliness, and not least the pursuit of general culture—which is the capacity to enjoy the beauties of life—and loyalty to his fellows, and full participation in the duties of citizenship. A successful professional man cannot confine himself to his profession to

the exclusion of those interests which concern every man. He must not bring upon himself the reproach expressed by an unknown author who said "A Professor of Greek is one who knows a little Greek and nothing else." The Roman writer—Terence—wisely declared: "I am a man, and nothing human is foreign to me." George Elliott said: "The best augury of a man's success in his profession is that he thinks it the finest in the world." Let me amend this by saying: "The best augury of a man's success in his profession is that he is willing to make it the finest in the world."

Some of you are at the immediate thresh-hold of your professional careers; others of you are about to enter for a time the armed forces of the nation. To all, wherever fate should carry you, I say: may fortune attend and smile upon you.

The Objectives of the American Foundation for Pharmaceutical Education*

EDWARD S. ROGERS

Chairman of the Board of Sterling Drug Inc.

I have always wanted to be a pharmacist. I recall that as a small boy I used to go to the warehouse in Boston where my grandfather's ships unloaded many years before—there was an odor about it—every time I go into an old-fashioned drug store, it comes back. Psychologists tell us that early recollections are more vividly stimulated by the sense of smell than by any other sense. My grandfather's ships sailed to the Orient and to the Mediterranean. They took out lumber and Yankee notions, but they brought back senna from Alexandria, oranges from Sicily, olive oil from Genoa, coriander, cardamom, pepper and vanilla, nutmegs, mace and cinnamon, tumeric and saffron. The very names of them sing. You may remember Masfield's verse in *Cargoes*—

*An address delivered before the 1944 meeting of the National Association of Chain Drug Stores at French Lick Springs. Mr. Rogers is the author of the California Fair Trade Act and it was he who successfully argued its constitutionality before the Supreme Court. He holds the honorary degree Doctor of Pharmacy from the University of Southern California. He is a member of the Board of Grants of the Foundation.—Editor.

Quinquireme of Nineveh from distant Ophir,
Rowing home to haven in sunny Palestine,
With a cargo of ivory,
And apes and peacocks
Sandalwood, cedarwood, and sweet white wine.

The air of that warehouse was laden with a combination of heavenly smells. And an old-fashioned apothecary shop always reminds me of it.

Pharmacy seems to inspire poetry. Ode to a Nightingale, Endymion, and an Ode to a Grecian Urn might have come out of an apothecary shop, for John Keats was a clerk in a drug store. So might have The Autocrat, Old Ironsides, and The Chambered Nautilus, for Oliver Wendell Holmes, Senior, spent three or four months as an apothecary in a Boston hospital. There's romance in the drug business if only you look for it. But I won't bore you with my nostalgia. Let's get to the present.

The American Foundation for Pharmaceutical Education had its origin in the National Drug Trade Conference. That Conference met every year. On account of the war, it has not met since December 1941. Its meetings were held annually in Washington and attended by delegates from the members of the nine associations which made it up.

Each year the Committee on Endowment, of which Dean Ernest Little is chairman, made a report. Dr. Little never made perfunctory reports. He gave thought to them and invariably came up with constructive suggestions. This voice crying in the wilderness was heard without anything actually happening until December, 1940, when the idea of forming a Foundation began to take shape and Dean Little, on instructions from the Conference, began correspondence with deans of colleges of pharmacy, asking them about the colleges' financial needs and their views on the general situation. A committee of the Conference began drafting a charter and by-laws, to give substance to the rather indefinite idea that was stirring. It was decided to separate it from the Conference. The Foundation would have the Conference's blessing and would be started off with a membership of the same associations as the Conference, but, from that point on, would be separate and independent.

The Foundation was formed by the filing of a certificate of incorporation under the Membership Corporation Laws of the State of New York, August 17, 1942.

The organization meeting of members was held on October 1, 1942.

The first annual meeting of directors and members, when the operation of the Foundation really commenced, was April 5, 1943. Its purposes are stated to be exclusively scientific and educational, to wit:

(a) To accept, receive, hold, invest, reinvest and administer gifts, legacies, bequests, devises, funds, benefits of trusts (but not to act as trustee of any trust), and property of any sort or nature, without limitation as to amount or value, and to use, lend, apply, employ, expend, disburse, and/or donate the income and all principal thereof for, and/or to devote the same to, upholding, improving, broadening and otherwise fostering, promoting, and aiding pharmaceutical education;

(b) To uphold and improve pharmaceutical education by aiding, in such ways, and in any and all ways consistent with the purposes of the corporation, colleges of pharmacy and students therein;

(c) To aid in the creation of sources of unbiased and authoritative investigation and experimentation on pharmaceutical problems;

(d) To assist in the selection of important research problems and to provide that the investigations be adequately financed, and to insure as far as possible that they be carried out by competent investigators under the supervision of recognized scientific authorities.

The membership of the Foundation, as defined in the By-Laws, consists of

- (1) Board of Directors, each Director automatically becoming a member upon qualifying as a Director and ceasing to be a member upon ceasing to be a Director; and
- (2) The American Association of Colleges of Pharmacy;
American Drug Manufacturers' Association;
American Pharmaceutical Association;
American Pharmaceutical Manufacturers' Association;
Federal Wholesale Druggists' Association;
National Association of Boards of Pharmacy;
National Association of Retail Druggists;
National Wholesale Druggists' Association;
The Proprietary Association of America;
National Association of Chain Drug Stores.

Officers are:

President—George V. Doerr
Vice President—Charles S. Beardsley
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The duties of the Board of Grants are defined as:

"The Board of Grants, subject to the approval of the Board of Directors, shall make all allocations of funds or other gifts, both principal and income. Such allocations, gifts or loans shall be submitted to the Board of Directors for action at regular or special meetings. Allocations so recommended by the Board of Grants shall not be subject to rejection by the Board of Directors except by the votes of at least three-fourths ($3/4$) of all the members of the Board of Directors, and unless rejected by such vote, the said allocations shall be deemed to have been approved by the Board of Directors."

Figures to June 1, 1944

Total contributions—\$485,000.

From 300 contributors.

Contributions ranging from \$25 to \$25,000.

Additional pledges outstanding.

Approximately 50 % of contributions from pharmaceutical manufacturing industry;

12½	N. W. D. A. membership;
15	Proprietary Medicine manufacturers;
12½	retail and chain drug stores;
6½	miscellaneous manufacturers of cosmetics, beverages, cameras, brushes, rubber goods, etc.

All but a few of the accredited colleges of pharmacy have formally applied for the scholarship awards made available by the Board of Grants.

On December 28, 1943, the Foundation mailed checks for \$400 each to 47 colleges of pharmacy—covering scholarship costs for 130 or more pharmacy students.

At the present time, the Foundation like everybody else is faced with the war emergency. That is to say, the colleges have suffered in enrollment and the first job seems to be to keep the worthy colleges alive until their enrollments go back up and they get on a peacetime basis.

I have not been in the drug business long enough to know a lot about it, and perhaps in what I am about to say, I'm rushing in where angels fear to tread. I've been on the Board of Grants of the Foundation for a year. I don't profess to a wide knowledge of pharmaceutical education, but for over thirty years I've been pretty closely associated with legal education and law schools, and I think I can detect certain resemblances between law schools as they were thirty years ago and some schools of pharmacy today. I may be wrong. My impressions perhaps are superficial and unsound, and if they are, I shall be glad. Please understand that what I am saying now applies to *law* schools and law schools as they used to be. Law schools were divided into two general classes—schools legitimately a part of universities, and proprietary schools. The first were supported by the universities' general funds, by endowments, or, in the case of the state universities, by taxation. Tuition helped, but the bulk of the revenue did not come from tuition or students' fees. With the proprietary schools, the reverse was the case. Their income came from what the students paid. The proprietary schools were generally in larger cities and held their classes in the evening. The students worked during the day and the teachers were usually practicing lawyers. Both the students and the teachers were tired after working all day. The dean was usually a man who liked the sound of the title, dean. He usually owned the school, and his living depended on what he could make out of it. The teachers were flattered to be called "professors" and were fond of dressing up in academic millinery and sitting on the platform at commencement time. Also, they liked the ex-

tra money they earned by teaching. The instruction was not very good. But there is no doubt that a lot of ambitious boys went to these schools who couldn't have gone to any other. The schools were democratic—there's no doubt about that. They turned out a lot of lawyers—some good ones. They were trade schools and their primary object was to get their graduates by the bar examinations. I doubt if there is justification for turning loose on the public a lot of incompetent lawyers. Some of the other schools went to the opposite extreme. They taught law primarily as a science—which it is not. They seemed to pride themselves on their impracticality. They turned out jurists—not practical lawyers. Their graduates could not do what a lawyer ought to be able to do—practice law. Lawyers can't be made that way. It's like learning to play golf out of a book. After thirty years' work—slow and sometimes discouraging—legal education stabilized itself. The proprietary law schools have raised their standards and bettered their teaching. Many of them have disappeared. The university schools have recognized the realities, and are turning out men much better qualified for actual practice than they used to be. Men who think of law as a living, moving thing, and who are equipped to go out and use what they have learned. Then there are the review schools—the cram schools. There will always be cram schools as long as there are state examinations to be passed. It is a mistake to assume that a cram school is a substitute for a law school or that it *educates* anybody. Its sole function is to get students past the examiners—and, as long as bar examiners are what they are (I don't know anything about the examiners in pharmacy), these schools are useful. You can't practice without passing the bar examination. You can't pass the bar examination without knowing in a general way what to expect. It is the crammer's job to review the subjects one is likely to be asked about by the examiners. I repeat, it is not the crammer's job to educate anybody, but to get him by. And he does a good job. I always tell law school graduates who come to me for advice about bar exams to go to a crammer for a month or so. I suppose pharmacy must be something like that, too. I don't know. But crammers don't educate; that's not their job.

I venture the suggestion—I'm not sure enough of its soundness to do more than to throw it out for discussion—whether in pharmacy, unlike law, there is not room for trade

schools which would equip students in two years or so for the routine work of a drug store and graduate them as licentiates in pharmacy and have some—a comparatively few—institutions which are equipped to do it, offer to licentiates who are fit to go farther and desire to, advanced work in pharmaceutical chemistry.

And now, after this excursion into the unknown, and perhaps the irrelevant, let's get on.

The purpose of the Foundation from the long range viewpoint is to have a five-year program for \$5,000,000. While the war continues, about all that can be done is to relieve the desperate situation of the colleges. Of the 64 accredited colleges of pharmacy in this country, seventeen are facing today a new deficit, totaling \$203,000, as a result directly of the war, chiefly through loss of income because of lack of students and, hence, lack of tuition. There were 41 colleges of pharmacy which reported to the Foundation that they will need no financial assistance until the fall of 1944. Whether or not they may then need help, will depend upon how long the war lasts and how long it is before we have more students coming back for enrollment.

In addition, there were six schools that did not reply to the inquiry as to the need of funds—implying that at this time they are not in need.

On April 4th last, the Board of Directors of the Foundation voted to authorize the Board of Grants to use \$100,000 which was made available to the Board to give immediate aid to the 17 schools that have a deficit of \$203,000 and which must have some assistance if they are to keep their doors open.

On May 17, the Board of Grants voted \$62,000 aid to thirteen colleges of pharmacy which seem to be in distress. In the case of schools that made an honest effort to get contributions from alumni and friends, and did not succeed in getting enough, the sums granted were outright gifts. In the case of certain schools where it seemed to the Board of Grants that local subscriptions might be obtained by their own efforts, the Board made grants of a certain amount immediately and an additional amount contingent upon the institutions matching it as a result of their own efforts. This last, however, was a

comparatively small amount because the schools have been doing a good job and helping themselves as much as they could. Of course this action is to relieve necessities of the schools on account of the depletion of the student body as a result of the war. It is simple enough. Most of them depend on tuition for income. When attendance drops, tuition drops correspondingly. Some of the schools say frankly that unless they get help they will have to close, which, it seems to us, would be a calamity.

In addition to the grants for scholarships and these grants in aid, the Board of Grants has under consideration appropriations for fellowships, in a long-range effort to help good men do graduate work with a view to their ultimately teaching. There are three general objects that the Board of Grants has in mind: by scholarships to help deserving young people in the study of professional pharmacy; by temporary grants to the schools to keep them open, and by fellowships to strengthen the teaching staff—all in the direction of improving education in professional pharmacy.

Another digression.—A situation has only recently come to our attention which the Board of Grants deprecates. A number of schools of pharmacy hold themselves out as units in a university. They do this, apparently, for reasons of prestige. It helps them, they think, to be known as a part of a great institution. When the sun is shining and the school is self-supporting, this scheme works out all right from a fiscal standpoint, but when hard times come and the school is in danger of going on the rocks, its putative parent, the university, promptly disowns it. When such a school applies for a grant and is asked why doesn't its ostensible parent help it out, it is frank enough to say that the connection is a fiction and that the university won't help. It seems to us that academic shenanigans of this sort ought not to be encouraged. If a school is permitted to hold itself out as a part of a university, the university ought to assume responsibility not only for its academic standards, but for its financial solvency, and, if it is unwilling to stand by its putative offspring in adversity, it should not allow it to claim affiliation. Moreover, a self-respecting school ought not to be a party to such a fraud. If this sort of thing should be attempted in the labeling of goods, it would be regarded as misbranding under the Food,

Drug and Cosmetics Act. A school is either a part of a university or it isn't. If it isn't, it should not claim to be.

The real purpose of the Foundation's existence, of course, is the long-range one, involving better colleges, a better class of students, more students and more research work, improved scholarship—giving rise to more opportunities for pharmaceutically trained men, making the study of pharmacy more appealing to young men and women.

Considering these purposes, it should be clear that there is no conflict with the Committee on Public Relations which is also raising a fund. The purposes of that Committee are not at all out of harmony with the Foundation's purposes.

We hear a good deal these days about public relations. It is one of those vague phrases which seems to have an individual meaning for each person employing it. When the Army, or a general, gets a good or bad press, most of us are inclined to ascribe it to good or bad public relations, as the case may be. Likewise, public respect or condemnation of a government bureau, a corporation, a labor union, even a philanthropic enterprise is said to result from good or bad public relations.

Actually, public relations is an indefinite description of an intangible and elusive thing. One might ask what public—for there are many publics (government officers, consumers, employees, suppliers, stockholders, *etc.*) One might also ask what relations.

There is a state of mind which for want of a better term can be called "the rock of ages" complex. Public relations, so-called, is sometimes something like that. It is conceived as something outside that we can cling to and that will take care of us. It is the same idea that outward piety on Sunday makes up for a sinful week and that it is the preacher's job to save our souls—that is what we pay him for. This is manifested in the idea that someone can be hired to do a job that is too troublesome for us to do. The fact that public relations has its practitioners implies the belief that some wonder worker can be hired and that he vicariously can do for us what we ought to do for ourselves. It seems to me that this is an entire delusion. I am not decrying preachers and public rela-

tions counsel. They are useful guides. But, fundamentally, we've got to save our own souls and our own businesses by our own efforts, and we've got to do it ourselves and not hire somebody to do it for us and then sit back and say "Well thank God that's done." It isn't done; it hasn't begun. It has always seemed to me that good public relations consists of *doing* those things which will create good will among the particular public with which a person or company must come in contact in the ordinary course of living or of doing business. Good will isn't made by talk—but ill will often is.

Good will is more than smiling amiability. It is collective friendliness aimed at something definite. Ill will is the opposite. Good will or ill will is created at the point of contact.

Without a foundation of self-respect, it is impossible to build good will. No one can expect others to respect him unless he respects himself, for, to get the respect of others, a man must first respect himself, his business or his profession. In the case of pharmacy and the pharmacist, this involves such obvious things as keeping himself and his place of business clean, uncluttered and orderly. People are apt to judge by appearances. After all, the show window of pharmacy is the pharmacist and his establishment. It doesn't strike me that elaborate and expensive schemes of press agency are going to be of much help at this, the public's first point of contact with the profession. The task is fundamental. It involves the development of a great inner pride in his establishment and in the profession, which can spring only from the pharmacist's recognition of his calling's distinctive contributions to the public welfare. He cannot talk himself into dignity any more than advertising can make a product meritorious. Advertising may sell the first package of a worthless product, but no amount of it can build up a business in a fake, even accepting Barnum's estimate of the birth rate of suckers. It can't be done.

It is bad public relations—whatever you understand the term to mean—for individual druggists to disparage their own profession, to tell people who ask "For God's sake don't study pharmacy. A druggist leads a dog's life—long hours, short pay. Keep out of it." Everybody talks that way about his own job. It's a part of the routine. I'll venture the asser-

tion that most lawyers will say the same thing about the law—I've heard them lots of times. They will quote Holmes where he said "One found oneself plunged in a thick fog of details—in a black and frozen night, in which were no flowers, no spring, no easy joys. Voices of authority warned that in the crush of that ice any craft might sink. One heard Burke saying that law sharpens the mind by narrowing it. One heard in Thackeray of a lawyer bending all the powers of a great mind to a mean profession. One saw that artists and poets shrank from it as from an alien world." I think it is only human nature to talk that way about one's own profession. I suspect the reason is that very few men get in life where they think they should. Everyone has a sense of frustration and failure—and this is a symptom of it.

As I see it, however, there is no inconsistency between the Foundation and a public relations campaign for pharmacy; indeed, they fit together perfectly. The purpose of a public relations campaign for pharmacy is to sell pharmacy to the public. To sell pharmacy you've got to have pharmacists. The purpose of the Foundation is to help the right kind of boys and girls to educate themselves as pharmacists by (a) offering scholarships and (b) helping the colleges of pharmacy to survive the present extraordinary period when their normal incomes have been drastically reduced for causes over which they have no control. In short, the immediate objective of the Foundation is to keep the educational plants going and help to furnish the raw material which is so obviously necessary to their continued operation. The Foundation can do certain things which are grouped under the title "Public Relations." Indeed, as I see it, its activities are all in the direction of good public relations, but public relations is not its primary purpose.

Certainly the Public Relations Committee is not set up to take the place of or do the work of the Foundation. It has not set up any machinery for dealing with the colleges and for determining matters of scholarship. For one thing, it is not set up as a permanent organization. It may be unfortunate that it must solicit funds from the same people who are asked to contribute to the Foundation, but surely there is no other conflict between the two.

This leads to what is probably the cornerstone of the Foundation—permanency. It is the only thing, to my knowledge, on which all elements in the drug trade and profession have agreed. The different elements never were in complete agreement on proposed legislation, on methods of distribution, on discounts, *etc.* There was something approaching this in the Drug Institute a decade ago, but I doubt if all of the professional elements participated. It had in it seeds of disintegration from many points of view. One important one was that the Institute was made up of members drawn from companies so that there was some possibility of drawing members to it away from other existing associations. The Foundation does not have such seeds of dissension. Its membership is made up of the associations and not of the members of the associations. It is, therefore, not "another" association for people in the drug business or the drug profession to join.

If you will consult the list of member associations above, you will see that all manufacturers are represented, the wholesalers, the retailers, the chain stores, the colleges, the boards of pharmacy, and the academic side further represented by the American Pharmaceutical Association. Therefore, through the endorsement and membership of these associations, the whole drug industry, trade and profession are joined together in a common undertaking.

This being so, the industry, the trade and the profession are put to the test. The Foundation, born of this unanimous and substantial accord, is a test now of the ability to maintain accord and make permanent the common, unified effort. Thus it challenges the industry, the trade and the profession, and everyone in them.

Dr. Robert C. Wilson says—"One of the greatest tragedies of this era lies in the fact that there seems to be a general tendency for all of us—regardless of our station in life—to distrust all leadership. Loss of confidence in individuals and institutions does not bode well for professional development or for the principles upon which our democracy is based." In this Dr. Wilson is right. A lesson leadership must learn, if we are to have confidence in it, is that it can't say one thing and do another.

The Development of the Pharmaceutical Textbook A Synopsis

GEORGE URDANG

Director of the American Institute of the History of Pharmacy

On the occasion of the meeting of District 4 of the Boards and Colleges of Pharmacy held at Madison, Wisconsin, on May 1 and 2, 1944, the author exhibited a series of volumes accentuating the development of the pharmaceutical textbook in the six great cultural centers of the Western world: Italy, France, Spain, Germany, England, and the United States of America.

The selection was made with the utmost restriction possible to books considered to be especially illustrative of beginnings and turning points. The following texts, mounted on cardboard, were posted on the cases containing the exhibit.

I. *The Beginnings in Italy*

From whatever angle we approach the development of the sciences of pharmacy, we have to start with the Græco-Roman Pedanios Dioscorides' *De Materia Medica* (first century A. D.). This work has to be regarded as the first textbook on drugs.

Thus it is but natural that when about 1450 the Italian physician Saladin De Asculo wrote his *Compendium Aromatariorum*, called by the great historian of pharmacy, Hermann Schelenz, "the first real treatise on pharmacy in a modern sense," the book was based on Dioscorides.

It proves the stabilization of the comparatively young profession of pharmacy that in the late fifteenth and the early sixteenth century three other books appeared in Italy which their authors designated as guides for pharmacists: Quirico De Augustis' *Lumen Apothecarum*, De Manlius De Bosco', *Lumen Majus* and Paulus Suardus' *Thesaurus Aromatariorum*. The titles were promising enough: the light of the apothecaries, the greater light, and the apothecaries' treasure house.

With Manlius De Bosco and Paulus Suardus the first author-apothecaries writing for their colleagues enter the scene. All previous authors of pharmaceutical treatises had been physicians.

II. The Development in France

It has to be kept in mind that the terms designating pharmaceutical publications were used rather arbitrarily. Thus the first book to bear the title "*pharmacopæa*", Jaques DuBois', latinized Silviu, *Pharmacopææ, Libri Tres*, published in 1548, is a textbook rather than a formulary. It may well be regarded as the first French pharmaceutical text.

Based on the treatises of Saladin De Asculo and Jaques DuBois but going much farther in its descriptions and explanations of pharmaceutical technique is the book of Jean De Renou, latinized Renodæus, that appeared in 1608 under the amazingly modern title *Institutionum Pharmaceuticarum, Libri Quinque, i. e.*, five books on principles of pharmacy.

In the second half of the seventeenth century there appeared in France the so-called royal or universal pharmacopœiæ representing a combination of a text, a reference book, and a formulary. The earliest representative of this French group of books was the apothecary Moyse Charas' *Pharmacopée Royale Galénique et Chymique* the first edition of which appeared in 1676. It was followed in 1698 by the pharmacist Nicolas Lemery's *Pharmacopée Universelle*. Both books were re-edited many times and throughout several decades.

In 1660 the physician Nicolas Chesneau published a book under the then amazing title *La Pharmacie Theorique*. It was more than a century later that the apothecary Antoine Baumé published his famous *Elémens De Pharmacie Theorique Et Pratique* (1762). From then on there appeared one textbook after the other and among their authors were men like J. J. Virey (1811) and E. Souberan (1835).

III. The Development in Spain

Spanish pharmacy has always enjoyed a high scientific and professional average standard. It shared, however, in the general fate of its country to be restricted in active par-

ticipation in the scientific development of the last two hundred years.

In 1673 there appeared the *Tyrocinio Pharmacopeo Methodo Medico y Chymico* still primarily based on Dioscorides and Pseudo-Mesue by its author G. De La Fuente Pierola.

In 1727 the first edition of the pharmacist J. De Loeches' *Tyrocinium Pharmaceuticum, Theoretico-Practicum, Galeno-Chymicum* was published. The analogy to the French texts of the same period is obvious.

In 1814 the court pharmacist Gr. Bañares published what he called *Filosofia Farmaceutica ó La Farmacia Reducida a Suo Verdaderos Principes*. Pharmacy reduced to its real principles was the goal of the textbook of Bañares.

In 1842 the pharmacist Jimenez thought the time ripe for a more practical education of the Spanish pharmacists. He published a Spanish translation of the French pharmacists Guibourt and Henry's *Pharmacopée raisonnée* under the title *Farmacopea Razonada ó Tratado De Farmacia, Pratio y Teorico*.

IV. *The Development in Germany*

A small booklet published in 1543, Otto Brunfels' *Reformation der Apotheken* opens the series of German books to be considered as pharmaceutical texts. It is obviously a German paraphrase on the Italian Saladin De Asculo's *Compendium Aromatariorum*.

Of far greater importance were the encyclopedic books on pharmacy published in the second half of the seventeenth century, especially J. C. Schröder's *Pharmacopœia Medico-Chymica*, published for the first time in 1641 and in use for more than a century, and J. H. Jungken's *Corpus Pharmaceutico-Medicum* the first edition of which appeared in 1697. Although intended as reference books, they were widely used as texts.

The flood of modern German pharmaceutical textbooks which, like in France, were produced by men of great scientific achievements, was started by the pharmacist K. G. Hagen's *Lehrbuch der Apothekerkunst* in 1778. Of the books

of the pharmacist J. B. Trommsdorff his attempt at a synopsis of pharmacy (first edition 1804) may be mentioned. The pharmaceutical alkaloid discoverer P. L. Geiger published the first edition of his *Handbuch der Pharmacie* in 1824. The fifth edition was revised by the great chemist Liebig and simultaneously alienated from pharmacy. It developed into Liebig's *Handbuch der Chemie*. The *Deutsches Apothekerbuch*, published in 1840 by the discoverer of catalysis, the pharmacist J. W. Döbereiner in cooperation with his son Franz Döbereiner, may be regarded as the last product of the classical period of the German pharmaceutical textbooks. From now on a trend towards specialization becomes evident represented most remarkably by the pharmacist Ernst Schmidt's *Ausführliches Lehrbuch der Pharmazeutischen Chemie*, the first edition of which appeared in 1879 and which has been revised and re-edited ever since.

V. The Development in England

There were no real pharmaceutical texts in England until about the middle of the nineteenth century. In the seventeenth century the English helped themselves by translating German and French books. In 1669 a translation of the *Pharmacopœia Medico-Chymica* of the German Schröder appeared in London under the title *The Compleat Chymical Dispensatory*. In 1678 Charas' *Pharmacopée* was presented to the English in a translation entitled *The Royal Pharmacopœia*.

Since the end of the seventeenth century the dispensatories being at once commentaries on the pharmacopœias and texts filled the niche. In Quincy's *Compleat English Dispensatory* (first edition 1718) a special part was devoted to "the Theory of Pharmacy and the several processes therein. William Lewis started his *New Dispensatory* (first edition 1753) with a chapter on "The Theory and Practice of Pharmacy" and Andrew Duncan father and son followed in his footsteps. In 1805 an American, the so-called Worcester edition, of the younger Duncan's *The Edinburg New Dispensatory* was presented to the American pharmacists. The book was not quite new to them. An earlier edition had been reprinted in volume 14 of Th. Dobson's *Encyclopædia*, published in Philadelphia in 1798.

In 1847 the German apothecary C. Fr. Mohr's *Lehrbuch*

der Pharmaceutischen Technik, a treatise restricted exclusively to pharmaceutico-technical subjects and intended to supplement the German scientific texts, was published. Apparently because of its restriction to purely practical matter Mohr's book turned out to be the text the Anglo-Saxon pharmacists had been waiting for. At the end of 1848 the English pharmacist, Th. Redwood, published a translation adapted to the English needs under the title *Mohr-Redwood, Practical Pharmacy*, thus giving to Great Britain her first real pharmaceutical text.

VI. *The Development in The United States of America*

In 1846 William Procter, Jr., appointed the first professor of pharmacy at the Philadelphia College of Pharmacy, stated that "we look in vain amongst the medical literature of the English language for a single work devoted exclusively to this branch of knowledge." Th. Redwood's English modification of the German C. Fr. Mohr's book on pharmaceutical technique brought the salvation.

In 1847 Mohr's book appeared. At the end of 1848 Redwood's adaptation came out, and as early as March, 1849, William Procter, Jr., published an enlarged American edition "with extensive additions" bearing the title *Procter-Mohr-Redwood, Practical Pharmacy*.

This reference to and preference of "practical pharmacy" remained typical of the majority of the American pharmaceutical texts until quite recently. Edward Parrish called the first truly American textbook on pharmacy issued by him in 1855 *An Introduction to Practical Pharmacy*. This title was changed since 1864 to the less specific *A Treatise on Pharmacy*. When, however, Joseph P. Remington published in 1885 the first edition of his text which was to become the most popular in this country, he thought it adequate to name the book *The Practice of Pharmacy*. It still bears this title.

Of the three American textbooks on pharmacy most used at present, Remington-Cook-LaWall's *Practice of Pharmacy* represents the encyclopedic type, Caspari-Kelly's *Treatise on Pharmacy* the didactic, and Arny-Fischelis' *Principles of Pharmacy* the systematic one.

There is a growing tendency of having special volumes written from a pharmaceutical point of view for the special sciences on which pharmacy is based.

College of Pharmacy Associations

GEORGE URDANG

American Institute of the History of Pharmacy

In the April, 1944, issue of this journal (vol. 8, No. 2), on pages 195-230, Harry L. Kendall and C. O. Lee published three papers giving "a brief account of the details of the educational progress made in pharmacy from the time of the organization of the American Pharmaceutical Association to the present time" (editorial footnote). These papers represent an exemplary and very valuable study undertaken by a graduate student under the guidance of a teacher well versed in the history of pharmacy and the methods and means of pharmaceutico-historical research.

There is, however, one assumption which requires some clarification: the assumption that the American Pharmaceutical Association may be regarded as the first of the "College of Pharmacy Associations" dealt with in these papers. True, the authors state in their introductory remarks that "the name, college of pharmacy, as used in those days was not synonymous with school of pharmacy, but was merely an organization or association of pharmacists." The contents of the chapter on "The First Association," however, construe some kind of differentiation between these early "colleges" and "other individuals and groups" within American pharmacy thus giving room to the conclusion that the American Pharmaceutical Association was founded primarily by pharmacy school teachers and mainly for the promotion of school purposes.

What was the situation that caused "The Convention of Pharmaceutists and Druggists" held in the City of New York on October 15 and 16, 1851, and led to the founding of the American Pharmaceutical Association on "The National

Pharmaceutical Convention" assembled at Philadelphia October 6-8, 1852?

There cannot be any doubt that the primary aim of the members of the New York College of Pharmacy in calling "The Convention of Pharmaceutists and Druggists" in 1851 was to cause concerted action of the pharmacy conscious American druggists of this time against the import of adulterated drugs. In the invitation sent out by the New York College of Pharmacy on September 9, 1851, no other subject was mentioned. An editorial in *Am. Journ. Pharm.* (23:391, 1851), entitled "Standards for Drug Inspectors" and written in all probability by William Procter, Jr., then editor, reads as follows:

"We understand that the New York College of Pharmacy, has passed a preamble and resolutions, inviting the other Colleges of Pharmacy to meet in convention in New York with a view of fixing on standards of quality, for the government of Drug Inspectors, to be recommended to Congress for adoption. This is an excellent movement, and very properly originates in New York, where by far the larger portion of the drug importations arrive. The object aimed at will require much deliberation to accomplish it effectually. We hope the other Colleges of Pharmacy will respond by sending delegates, and thus at least have an understanding in reference to the matter, which may subsequently result in the formation of a tariff of standards, calculated to work on an important improvement in the quality of importations."

If there would have been any intimation of the intention to take steps in the direction of a national association of the pharmacists of the United States of America, William Procter, Jr., who in the *American Journal of Pharmacy* had pointed again and again to the Pharmaceutical Society of Great Britain as an exemplary pattern, would not have failed to mention and even to dwell upon it.

That to William Procter, Jr., the term "College of Pharmacy" had definitely and exclusively the meaning of an association and not of a school, becomes obvious from the fact that in an editorial note immediately preceding the one quoted above, he reported under the heading "Schools of Pharmacy" as follows:

"... We understand that the Cincinnati College of Pharmacy, intend opening their School this session... We have not as yet seen any announcement of the Massachusetts College of Pharmacy at Boston, recently established (should read reestablished), and do not know whether they intend opening a Pharmaceutical School this winter or not..."

As a matter of fact, the Cincinnati College of Pharmacy did not establish more or less regular instruction until the early sixties of the nineteenth century and a regular school until 1882, while the Massachusetts College did not provide for regular instruction until 1867. The Maryland College of Pharmacy, finally, not mentioned by Procter in the note quoted had suspended its School from 1847 to November, 1856. Thus of the five so-called "Colleges of Pharmacy" represented at "the National Pharmaceutical Convention" held at Philadelphia on October 6 to 8, 1852, merely two, the Philadelphia College of Pharmacy and the College of Pharmacy of the City of New York, had "Schools" offering regular pharmaceutical instruction. But may be the man who for the first time suggested measures leading to a national pharmaceutical association was a schoolman with primarily educational interests. The fact is that he was not.

On the first day of the New York "Convention of Pharmacutists and Druggists," *i. e.*, on October 15, 1851, Dr. C. B. Guthrie of the New York College of Pharmacy was nominated as President of the Convention. In a footnote to the proceedings published in *American Journal of Pharmacy* (24:22, 1852), William Procter, Jr., gave the following explanation:

"To those not acquainted with Dr. Guthrie, it may appear singular that the President of a Pharmaceutical Convention should be a physician. To such we will say, that Dr. Guthrie, though a graduate of medicine, and at one time a practitioner, has for many years past been a druggist. The deep interest taken by Dr. G. in the working of the *law for the inspection of imported drugs*, and his position in the New York delegation very naturally suggested his name as chief officer of a *convention specially called in reference to that Act.*" (No italics in the original.)

In his statement of "the objects of the call for this [1851 New York pharmaceutical] convention," Guthrie mentioned

1. the "adoption of a series of standards for the use of the Drug Inspectors" and 2. "the proposal of any measures that might be calculated to elevate the profession, and to promote their interests throughout the country." (Minutes of the Convention of Pharmacutists and Druggists, held in the city of New York October 15, 1851, page 4.) The "proposal" under 2 was certainly a new addition to the "objects of the call for this convention," and its vagueness is very likely due to the fear of Guthrie to surprise those present with too definite a suggestion.

It was undoubtedly the example of the American Medical Association founded only three years ago, in 1848, that Guthrie had in mind in speaking of measures to promote the interests of pharmacists throughout the country. His personal experience with this association had taught him the lesson that it is only by organization on as broad a basis as possible that a profession and the interests of its members can be promoted efficiently. As a physician Guthrie had taken advantage of his membership in the American Medical Association. As a pharmacist he had to take a refusal from the same organization because there was no national pharmaceutical association backing his suggestions. When Guthrie, on May 6, 1851, laid before the American Medical Association assembled at Charleston, South Carolina, a proposal of the New York College of Pharmacy concerning a tariff of standards for the use of Drug Inspectors, the physicians attending the meeting were apparently in doubt whether this proposal of one local group of pharmacists was indeed representative of the opinion of American pharmacy on the whole. As the report in the *American Journal of Pharmacy* (23:290, 1851) puts it: "the sentiment of the Association was evidently in favor of such a tariff of standards, but they wanted it to be more fully matured by a *Convention of the Colleges of Pharmacy*." (No italics in the original.)

The Committee appointed by the New York Convention of 1851 "to take charge of the papers presented and to report to the next meeting a plan of action for the Committee to adopt" consisted of William Procter, Jr., of Philadelphia; Thos. Restiaux, of Boston, and George D. Coggeshall, of New York. William Procter, Jr., being the only member of this Committee that had occupied himself considerably with the idea of a

national association and the realization it had found in some European countries, there cannot be any doubt about his predominant part in the preliminary steps undertaken in 1851 at New York toward the establishment of a national pharmaceutical association. It is furthermore understood that it was due to him that it was resolved "that a convention be called, consisting of three delegates each, from incorporated and unincorporated pharmaceutical societies, to meet at *Philadelphia* (no italics in the original) on the first Wednesday in October, 1852, when all the important questions bearing on the profession may be considered, and measures adopted for the organization of a National Association, to meet every year."

As to the fight against the importation of adulterated drugs, William Procter, Jr., had graciously conceded that New York was the proper place of initiating and directing action. As to the creation of a national pharmaceutical association in the United States of America, he certainly considered Philadelphia to be the only adequate place.

William Procter, Jr., was a teacher of pharmacy and even a very prominent one. Can it be said that he intended to make or even actually made the new association an organization primarily of *Schools*? By no means. It was undoubtedly not by accident but the result of thorough consideration that the resolution concerning the planned organizational meeting to be held at Philadelphia in 1852 avoided the then usual term "College of Pharmacy" and extended an invitation to "incorporated and unincorporated pharmaceutical societies." The organization of American pharmacy as such and the reformation of the conduct of business within retail pharmacy was the primary and immediate goal of the new movement. The establishment of *Schools*, as desirable as it was regarded to be, could be given only a second place at this time and within this plan and organization. This fact is unmistakably expressed in the first resolution adopted at New York and probably other subjects likewise:

"Resolved, That in the opinion of this convention much good will result from a more extended intercourse between the pharmaceutists of the several sections of the Union, by which their customs and practice may be assimilated; that pharmaceutists would promote their individual interests, and advance their professional standing, by forming associations

for mutual protection, and the education of their assistants *when such associations have become sufficiently matured . . .*" (No italics in the original.)

The following conclusions seem to be cogent:

1. The incentive for "The Convention of Pharmaceutists and Druggists" held at New York in 1851 as well as for the establishment of a permanent American national pharmaceutical association came from American organized medicine.
2. The assumption that a "first association of colleges of pharmacy was organized on October 15, 1851, in New York City due to the efforts of the College of Pharmacy of the City of New York" cannot be substantiated. Neither was "The Convention of Pharmaceutists and Druggists" an association of whatever kind nor did it organize one. Called for quite another purpose, it did only some preliminary work in the direction of a national pharmaceutical organization. It was at Philadelphia, on October 7, 1852, that this organization, the American Pharmaceutical Association, was finally established.
3. The American Pharmaceutical Association was neither intended to be nor has it ever been an association of "Colleges of Pharmacy" in the meaning of schools of pharmacy.
4. The fact that many of the best men in early American pharmacy taught in the pharmacy schools of the early associations ("colleges") besides being pharmaceutical practitioners, made them school and education conscious and promoters of the establishment of pharmacy schools. It was, however, the interests of the practice of pharmacy as executed in "the store" that was foremost in their minds and that they tried to promote by and within the American Pharmaceutical Association. It should not be forgotten that at some later time the over-emphasis laid by educators of this type on the immediate needs of "the store" threatened to retard the development of higher school standards.
5. The extraordinary part played by pharmaceutical educators within the American Pharmaceutical Association and so excellently documented in the publication of H. L. Kendall and C. O. Lee, has its basis in the fact that the concept of pharmacy as a profession was until the late nineteenth cen-

tury on American soil represented primarily by these teaching pharmaceutical practitioners. The general acceptance of this concept was an educational task which, however, could not be achieved within an "association of colleges," but only within an association consisting primarily of pharmaceutical practitioners and devoted to the interests of the body pharmaceutical at large.

Why Chemical Training Should Not Be Uniform*

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If any apologies to you are in order for taking your time with a discussion of this subject, they should be requested from your secretary who is entirely responsible. When the writer agreed to present the matter, he had ideas on particular phases of the topic and was willing to state them. A later and careful study of all implications involved in the exact title convinced him, however, that these convictions referred to but one of the angles suggested by the subject. In view of this, and with your kind permission, it is proposed to confine all remarks to a consideration of a new title; namely, "Why Instruction in Chemistry to Students of Pharmacy Should Not Be Uniform Throughout the United States."

You will note first that this is limited to students of pharmacy. If this were not done, and we included those of engineering and other fields, there would immediately be no need to consider the matter at all. Presumably no one will argue that the engineer or any other member of a different profession should have the same training in chemistry as the pharmacist.

Incidentally, your secretary originally proposed including all phases of pharmaceutical education in the title, not just chemistry. While the writer did not feel qualified to discuss thoroughly the ramifications in this broader subject, yet it is probable that the same reasoning will apply equally in physiology, pharmacology, or dispensing as in chemistry.

*Read before the section on Education and Legislation at the 1942 Denver meeting.

In opening the discussion, it seems imperative to inquire as to what are our objectives in giving the instruction in chemistry. During the course of a number of years spent in attempting to perform this function, the writer has had continually in his mind this question, and the correct answers have been sought in every available source. There is no dearth in the literature of opinions and advice on the few obvious phases, but the complete solution is far from being formulated in my own mind. However, let us examine critically those that seem more or less universally accepted and see what bearing they may have on our present problems. For the sake of clearness, allow me to state these objectives in brief, again noting that they apply equally well to any course in chemistry, and probably other subjects likewise:

1. To impart certain fundamental and indispensable information.
2. To provide other background material which may *a priori* be variable.
3. To furnish knowledge of informational sources.
4. To provide the proper inspiration.

In general, it is undoubtedly apparent to all of us that the arguments for uniformity could be applied most advantageously if we considered only the first objective. In other words, if one could demonstrate conclusively that there should not be a standard method for giving the student the indispensable information, then naturally we are forced to abandon any attempt to make a rigid outline for the whole course.

Perhaps there is no teacher of chemistry in the country who does not appreciate the necessity for the first objective, that of giving fundamental and indispensable information, and perhaps this is true in other subjects. Indeed, some lose sight of other reasons for instruction and consider the work done when the student has been forced to swallow and retain a dose which has arbitrarily been set by them. They may go even farther and evaluate the student by what percentage has been retained and estimate their own value as teachers on the same basis.

We all realize, then, that there should be in any course in chemistry a definite list of facts and principles that are fundamental and indispensable. The syllabus committee has accepted this in general and maintained that it applies equally

to other subjects. There may be some who think they disagree but usually, when such individuals are asked for reasons, we find that the objections are to content of the list and not to the list itself.

When it comes to making a complete file of the items to be included, however, the chances for one hundred per cent agreement are much less and may be practically nil. Each of us in the field has his own ideas and, if every teacher in a particular subject should develop his own list of fundamentals, it is certain that none of these would be exactly like any other. This, of course, means that the instruction in any one subject at a particular institution, as far as the fundamental information is concerned, would be, in some small degree at least, different from that at others.

But let us assume for simplicity that we could all agree on a uniform list of minimum information, just as the syllabus committee is setting up such outlines on the basis of majority opinion. This chance for agreement is really not far from actuality in organic and general chemistry, as was recently shown conclusively to the writer in a collaborative compilation for these courses. If we did accept such a list, then it might seem obvious that instruction in this direction could be standardized, since all that is necessary is to impart to the student the specified information.

However, one important fact must be noted, that the list tells us what, and not how. In other words, we have accepted a given item that is to be imparted, but we yet are given no specific method for accomplishing that objective. Take, for example, the elementary and simple statement that oxygen unites with most other elements to produce oxides. The writer cannot for one moment accept a rule that the student be asked to memorize the statement, and it is assumed that the rest of you would agree with him. Nor can one formulate a general method of procedure even in this simple case; each teacher has a plan of attempting the impartation that best fits his own personality. It is possible that accord might be reached on a method for certain particular items, but it seems to me entirely out of the question to expect such agreement on even a minor proportion of the items on our list. A good example of the divergence in plans is in analytical chemistry

when the subject of normal and molar equivalents is being considered. Indeed, any method that a given teacher finds excellent in his own instruction might well be inadequate for some one else, or might even serve to defeat the original object if attempted. We can only conclude, therefore, that our instruction cannot be uniform in transmitting the fundamental and necessary information.

The same reasoning applies to the second objective of giving effective background material. Here, moreover, the points raised have an added emphasis because we could not even begin to agree on a list of items. This is well illustrated in a critical comparison of the various college textbooks in general chemistry. The fundamental information is the same in all of them but the supplemental portion is always different, even if not markedly so in certain cases. If that were not so, there would be no object in having more than one textbook. After all we would not have it otherwise either in the text or in the classroom, because personality governs such matters to a large extent. No, we must conclude that here also we do not desire standardization; indeed, the reasons against are even stronger.

Perhaps some might consider that uniformity could most readily be effected in our third objective, that of furnishing sources for additional information. In one respect they would be perfectly right, in that a list of the items is already comparatively well fixed. But again let us note that the methods of imparting this to the student are the deciding factors and here also it is too much to expect accepted standards. The same arguments as previously used can be applied equally here.

Our most important function in teaching any course in chemistry is, in my opinion, that rather indefinite one of furnishing inspiration, and I presume that is true of other subjects as well. We may admit that this quality is abstract and largely indefinable, but most of us will admit also that it is always a vital problem. In fact, one could go even farther and postulate that the evaluation of a teacher is in large measure based on how much of this ability he possesses. Any textbook can give the information on fundamentals, furnish supplementary or background material, and tell where and how to obtain additional information that may be desired. Some

of them do this very well. Indeed, one could readily select a good textbook for a given course and hand this with a copy of the syllabus to the student with the direction to go to it. Except for making out an examination and grading the answers, an instructor might conceivably be unnecessary. Of course, it is admitted that the teacher can greatly assist the student to shorten the time required to complete the assignment by suggesting methods of procedure. Nevertheless, a successfully completed course requires in addition inclusion of considerable spiritual assistance, and it is in that field that the teacher plays a major role.

It is in this connection that I believe are the most cogent arguments against standardization of instruction. One can find plenty of evidence that the ability to stimulate interest is necessary in a course that is to be of value. Consult any group of students on opinions of a given course and, whether they have any fault to find or not, you will soon learn whether the teacher is endowed with that ability. The student, of course, does not speak of inspiration and he expresses himself rather vaguely, but he almost always estimates the worth of the subject to himself on what the instructor has done to stimulate him. When you look back on your own experience in undergraduate days, probably this is forcibly accented to you. Those courses in which a maximum of profit was gained, in information and otherwise, were those in which you put the maximum of effort, and the added exertion was always the result of inspiration from the teacher, in some cases the textbook.

If you agree with me that this is the most important function of the instructor, or even if you only agree that furnishing an inspiration is one of the objectives of teaching chemistry, then you must accept the condition that practice in any institution cannot be like that in another unless the same instructor is used by both. We actually need less rather than more uniformity when it comes to inspiring students with an interest in the field of chemistry.

In conclusion, let me apologize if your time has been wasted. The facts and arguments to which reference has been made seem to me self-evident and possibly they have been so to you. In that case the subject is not a moot one and we are

without opposition. In any event, however, it would seem fitting for a teacher to recall once in a while the good or bad reasons for his own usual methods of procedure.

Basic Sciences in the Pharmacy Curriculum^{*}

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During the last decade, with the general adoption of a minimum four-year curriculum in pharmacy, the first opportunity came for offering a more adequate foundation in the basic sciences on which pharmacy is founded. Prior to this time the pharmacist's training was confined largely to the practical problems of manufacturing and dispensing official products. This was necessary because of inadequate time for offering a suitable background in the general sciences. One of the common criticisms of education is in the failure of schools to teach students to think independently and to use logic and reason in the solution of their problems. The clear thinking necessary for the solution of scientific problems requires the student to be well grounded in facts and fundamental principles; fundamentals must therefore be regarded as the primary object in the training of pharmacists. "A trade requires only method—a profession requires a knowledge of the principles upon which method depends."

The horizon of pharmacy is gradually broadening and it will unquestionably continue to do so, for pharmacy has yet to realize its great opportunities as a service profession. At the present time it is estimated that approximately 75 per cent of all registered pharmacists are engaged in professional or merchandising stores. This information has unduly influenced many of our schools in placing emphasis on the commercial aspects of pharmacy. It is unfortunate that this should occur, for in a four-year curriculum it means the sacrifice of training in the basic sciences.

^{*} Read before the section on Education and Legislation at the 1942 meeting in Denver.

The nature and extent of education determines largely the usefulness and standards of a profession. The functions of a pharmacist are of such character as to require sound training in chemistry, physics, botany, biochemistry and the biological sciences. In fact, the practice of pharmacy may be considered as the intelligent application of several of these basic sciences to the problems inherent to the profession. With this in mind I should like to briefly outline an approach that will give such a scientific background, and yet allow sufficient time for a thorough training in theoretical and practical pharmacy.

The writer is well aware that there are several pathways to a given educational objective, but he is also aware of the danger of losing sight of the objective due to the many attractions and interests to be encountered in the pathway. Frequently this appears to be the result of over-emphasis on the commercial aspects of pharmacy. It is not in my opinion ever due to over-emphasis of fundamentals.

In a functional approach to the problem of a pharmacy curriculum it may be well to consider briefly the scope of pharmacy. This includes a number of specific functions in which, I am sure, there is common agreement.

- 1. Service to the physician and dentist.**

The physician and dentist should expect from the pharmacist authentic information on new medicinal products, including synthetics, proprietary, and biological preparations. They may also expect an opinion as to their relative merits, as well as methods for their administration. It requires that the pharmacist must know more concerning the physical and chemical properties of medicinals than the physician. A pharmacist lacking in such information cannot be considered as qualified for his duties.

- 2. Service in education of the public in matters pertaining to the general health of the community.**

The pharmacist's training should ideally prepare him for such service. Due to the wide contact which pharmacists have with the public health professions and the lay public, they are more favorably situated than other professional groups to further educational

programs in the interest of public health. This phase of the pharmacist's training has not received sufficient emphasis.

3. Service to the community in supplying medication and sick room supplies.

This important aspect of pharmacy deserves careful consideration. There is little doubt but that pharmacists in general have given too little consideration to the development of strictly pharmaceutical merchandising. A part of this responsibility rests with the schools in failing to develop in the student a proper perspective on the duties and responsibilities of the profession. The practice of "drug stores" stocking all types of merchandise has adversely affected the esteem held for pharmacy by both the lay public and the medical profession.

Principles must precede application. Medicinals, on the average, are relatively complex substances and a study of them without an adequate background is time wasted, or at least poorly spent. With this premise, pharmacy instruction should not start earlier than the sophomore year. The freshman year would then be devoted to general chemistry, botany, English, mathematics, *et cetera*. The sophomore year might then include introductory work in pharmacy, together with organic chemistry, analytical chemistry, physics, anatomy, physiology, pharmacognosy, *et cetera*. In this manner a logical sequence is provided for the courses in pharmacy, pharmaceutical chemistry, bio-chemistry, physical chemistry, pharmacology and bacteriology, which must follow.

In connection with certain of the courses named I should like to mention, for purposes of orientation, some of the reasons they are a necessary part of the pharmacy curriculum.

Physiology, Biochemistry and Pharmacology. In order for the pharmacist to keep abreast of the rapid advances in the fields of therapeutics and the technique of medication, and to contribute his share in the general progress of the public health professions, physiology, biochemistry and pharmacology represent a group of the biological sciences indispensable in the modern pharmacy curriculum. It is commonly agreed that a well rounded and basic course in pharmacology is es-

sential in the pharmacist's training. Unfortunately, this training is frequently given without a proper foundation. A clear understanding of pharmacology requires a good background in anatomy, physiology and biochemistry. Moreover, if the pharmacist is to serve as a collaborator of the physician (and this should be an objective in pharmaceutical training), a comprehensive course in physiology is well justified as an end in itself. Physiology presupposes an acquaintance with the general structure of the body, indeed without such information the student is unnecessarily handicapped. This material may be obtained from a short course in human anatomy or general zoology.

In the case of biochemistry we are dealing with a life science whose importance to the student of pharmacy is twofold. It not only serves as a solid background for pharmacology but, as an end in itself, a knowledge of biochemistry is important, if not essential for the proper teaching of many phases of practical pharmacy. Professor J. F. Sharpe, speaking at the British Pharmaceutical Conference in London, 1933, (Wokes—"Textbook of Applied Biochemistry") suggested that pharmacy was, in fact, applied biochemistry. This is of course an over-zealous statement, but the many applications of biochemistry in pharmacy are deserving of more general recognition. A knowledge of enzymes and their behavior is of paramount importance in any consideration of the relation between water content and the stability of crude drugs. Furthermore there is very good evidence that many drugs owe their activity to interference or reaction with the various enzyme systems of the body. A knowledge of the physiology and biochemistry of the gastrointestinal tract is imperative for an understanding of the types of compounds available and how they may serve for the enteric coating of medicinals. A student can have only an incomplete idea of the importance of buffered and isotonic solutions without a biochemical background. Several of the problems of drug extraction are more easily presented to students having a knowledge of plant biochemistry. The intelligent handling of such products as the vitamins, endocrines, bile salts, *et cetera*, requires sound training in physiology and biochemistry.

Physical Chemistry. Training in this division of chemistry is an essential part of the pharmacist's education. Be-

ginning courses in physical chemistry review the fundamental principles of general, analytical and certain phases of organic chemistry and elementary physics. These principles are developed in a manner calculated to make this material a real part of the student's effective scientific background. While it is true that the subjects of ionic equilibrium, phase equilibrium, colloidal chemistry, pH and buffer solutions, osmotic phenomenon and many other topics are usually presented to students in their freshman year, there can be little doubt that further amplification of these important ideas is necessary. Elementary physical chemistry develops a better understanding of the science of chemistry and introduces practical methods and ideas that pharmacists encounter almost daily in the perusal of current literature and in their professional work. Only a few of these need be mentioned to show the importance of this subject in the pharmacy curriculum: ionic equilibrium and the use of indicators and electrode systems in measuring and adjusting the pH of buffer solutions; phase equilibrium and partition coefficients; osmotic phenomenon and the isotonicity of solutions; colloidal chemistry, introducing, as it does, the fundamental principles underlying many pharmaceutical preparations; general properties of matter such as surface tension, viscosity, optical rotation, index of refraction, photometric measurements, *et cetera*.

Pharmaceutical Chemistry. In a broad sense pharmaceutical chemistry deals with the various chemical aspects of the development, standardization and use of medicinals. A proper presentation can only be given to students who have already received sound training in general, analytical and organic chemistry. Ideally the completion of a program equivalent to that required of the chemistry major would serve as a more logical foundation for developing the field.

For the undergraduate student pharmaceutical chemistry may be conveniently divided into the following courses:

1. Chemistry of the natural products.
2. Drug assay.
3. Food and drug analysis.
4. Synthetic medicinals.
5. Synthesis of organic medicinals.

The introductory course which deals with the chemistry of the natural products should precede instruction in manufac-

turing pharmacy. If the student is adequately trained in the physical and chemical properties of crude drug constituents, problems of extraction, separation and isolation of active principles may readily be handled with understanding; without such a background the procedures required in such processes are largely arbitrary from the student's viewpoint.

It is well recognized that synthetic products are rapidly replacing the *galenical preparations*. It has been estimated that at least seventy-five per cent of the total drugs in use at the present time are prepared synthetically.

In order for the pharmacist to properly discharge his duties, it is of course necessary that he receive thorough training in this very important class of medicinals. He must know the types of compounds in use for a specific pharmacologic effect; the representatives of each particular class and the general physical and chemical properties of each. It is also desirable that he should know the relative merits of the various synthetics in use, as this will enable him to better serve the physician.

It is the recognized function of colleges of pharmacy to train pharmacists, not tradesmen. Yet, because of the great emphasis that has been placed on merchandising, the colleges are frequently asked to include more training on the commercial and merchandising aspects of the profession. In a four-year curriculum there is insufficient time for presenting fundamentals and more than a brief orientation in some of the commercial phases of pharmacy. It is questionable whether it is desirable to attempt more than this. A student well trained scientifically and professionally should be able to adjust himself comparatively easily to the practical side of pharmacy and should in the end make a more useful pharmacist. On the other hand, a student well trained in commerce without an adequate scientific and professional background has very little likelihood of ever becoming proficient in his profession.

The success of an educational program in the training of pharmacists is largely dependent on the extent and degree which the program provides for making full use of the fundamental sciences on which pharmacy is founded.

The writer wishes to acknowledge the cooperation and suggestions of his colleagues, Drs. John J. Eiler and Frank M. Goyan.

Pharmacy in the Navy*

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Much has been written about the deeds of the Navy Pharmacist mate ashore and afloat. One might dwell at long length in describing the individual sacrifices of our pharmacists who go about their duties aboard ships, in advance base hospitals, among the amphibious landing operations all over the world, and those at home in hospital ward and training activities. In all of these assignments the proper care of the sick and wounded and the safeguarding of those in good health are equally as important as the careful planning of the most effective offensive operation. It is not the purpose of this paper to elaborate on these deeds. Rather than that, at this time when so many pharmaceutical educators throughout the Nation are beginning to plan on that post-war period during which thousands of honorably discharged service men and women will be streaming back to colleges and universities, it seems more fitting to present a picture of what training a Navy pharmacist undergoes and how pharmacist's mates of the various rates compare in extent of pharmaceutical training with those students of the average recognized pharmacy college. It is hoped that such information may help in formulating the post-war curriculum of the pharmacy college.

Before discussing the Naval training program it is interesting to note where in the vast Navy Department the role of pharmacy and the pharmacist's mate are played and a brief account of their Navy history. The duties and training of the Navy pharmacist's mate have been established by Navy regulations, The Bureau of Medicine and Surgery, the Manual of

* Presented before District No. 7 meeting of the American Association of Colleges of Pharmacy, and National Association of Boards of Pharmacy, Spokane, Washington, April 7, 1944.

the Medical Department, and the Hospital Corps. Since the organization of a separate Pharmacy Corps has been effected by the Army during the past year it has been suggested by the civilian pharmacists that a similar corps be established in the Navy. Actually this corps has been in existence since 1898 as the U. S. Navy Hospital Corps. Members of this Corps are known as hospital corpsmen or pharmacists. All pharmaceutical duties are carried on within the activities of the Hospital Corps. The ratings pharmacist's mate, pharmacist, chief pharmacist, and the ranks of the Hospital Corps above are delegated to personnel of the Hospital Corps. This corps and its rates were established by an act of Congress on June 17, 1898. The Corps thereby on that date became one of the four corps of the Navy Medical Department and its activities are carried on as a separate unit by the decrees of the Bureau of Medicine and Surgery of the Navy Department just as are those of the other three corps, the Medical Corps, the Dental Corps, and the Nurse Corps. In addition to establishing the grade of pharmacist the Hospital Corps Act of 1898 provided for the ratings of Hospital Apprentice first class and Hospital Apprentice and it fixed the pay and allowances and specified the duties of each rate.

Prior to the use of the term pharmacist and hospital corpsman, duties attendant upon the care of the sick and injured were performed in the Navy by crew members known as surgeon's mates (1). These men were the faithful attendants of the Navy Surgeon and under his direction issued all supplies, provisions, hospital stores, and attended to the preparations of nourishment for the sick. The surgeon's mate and his duties were established by *Navy Regulations* of 1814. These duties have been essentially carried over into the Hospital Corps. From the surgeon's mate which had its origin in the older British name of "Loblolly Boy" men performing duties of this rate were next called "Baymen" from the traditional Navy sick bay term for sick call. The rate then changed to surgeon's steward, male nurse, and finally in 1866 to apothecary. In the two years immediately preceding the enactment of the Hospital Corps Act of 1898 a circular order of the Navy Department prescribed that a candidate for examination and first enlistment as apothecary must be a graduate of some recognized college of pharmacy.

In discontinuing the rate of apothecary and inaugurating that of pharmacist in 1898, provision was at once set up by the Hospital Corps Unit for the training of its own members. Two permanent Hospital Corps Schools were subsequently established and maintained for the instruction of hospital corpsmen, one at Portsmouth, Virginia, under supervision of the commanding officer of the Norfolk Naval Hospital, and the second at San Diego, California, under the command of the commanding officer of the Naval Hospital at San Diego. The teaching staffs of these schools consist of medical officers, chief pharmacists, pharmacists, and members of the Hospital Corps and Nurse Corps. Previous to the present war the course of instruction at these schools consisted of a nine-month course in a curriculum including the following: anatomy and physiology, minor surgery and first aid, bandages and bandaging, splints and appliances, emergency dental treatment, materia medica and therapeutics, toxicology, nursing, ward management, operating room and surgical technique, hygiene and sanitation, allergy, genito-urinary and venereal diseases, prevention of venereal diseases, in industrial medicine and industrial hazards, field sanitation, diets and messing for the sick, pharmacy and chemistry, anæsthesia, administration, and general clerical procedures, hospital supplies and property accountability, commissary supervision, and medico-legal matters.

In recent years the text book used by students of these schools has been the Handbook of the Hospital Corps U. S. N., published by the Bureau of Medicine and Surgery under the authority of the Secretary of the Navy. This text was revised in 1939. United States Pharmacopœia, United States Dispensatory, National Formulary and New and Non-official Remedies are used in collaboration with this text.

Previous to 1941, following graduation with a certificate from these schools, men were rated as hospital apprentices and were sent to ships or shore activities for general and independent duty where their training for advancement in rate became directed by a medical officer or hospital corps officer. Others were sent to hospitals or advanced technical schools for further training in specialties. Some of these specialized courses and the time spent in each are as follows:

Course*	Length of		Candidates certified as:
	Length of course in	accelerated course in	
Aviation medicine	4	3	Qualified Assistant in Aviation Medicine
Clerical procedures	6	..	Qualified Assistant
Deep sea diving	6	5	Qualified Assistant
Dental technology (general)	4	2½	Dental Technologist
Dental technology prosthetic	8	6	Dental Technologist in Prosthetics
Electrocardiography and basal metabolism	4	3	Qualified Assistant
Clinical laboratory technology	7	6	Medical Technologist
Medical field service	3	1½	Qualified Assistant
Operating room technique	6	..	Qualified Assistant
Fever therapy	4	3	Qualified Assistant
Physical therapy	4	3	Qualified Assistant
Low-pressure chamber	3	..	Qualified Assistant
Roentgenology	6	5	X-ray Technologist
Neuropsychiatry	6	4	Neuropsychiatry Tech- nologist
Epidemiology and sanitation	4	..	Qualified Assistant
Commissary	6	..	Qualified Assistant
Pharmacy and chemistry	9	6	Qualified Assistant
Property and accounting	12	..	Qualified Assistant

* The TraDiv Letter No. 4 P. 34, 1943.

Previous to 1935 these courses were given in delegated recognized schools or universities throughout the United States. For example, for several years the advanced training in pharmacy and chemistry was given under civilian instruction in the Columbia College of Pharmacy and Philadelphia College of Pharmacy and Science. Trainees were sent through these schools at the expense of the Navy Department. Upon the recent completion of the Navy Medical School and Naval Hospital at Bethesda, Maryland, post-graduate training was moved to this medical center. It therefore has become the great Naval training center for medical education.

In addition to the Hospital Corps school and the specialized training given in one of the Navy's post-graduate schools, the hospital corpsman or pharmacist's mate is given further training aboard ship or in a shore station under the immediate instruction of a medical officer or hospital corps officer. Such training might be in one of the previously mentioned specialties. If, for example, in a pharmacy ashore or afloat, this training would be under the supervision of a medical officer

and the mate would be known as an apprentice in the pharmacy. Regardless of what branch a man specialized in, his rise in rate in normal times would depend upon his length of service or apprenticeship and an ability to pass an examination.

It must be noted here that during the pre-war Navy program before "Speed-up" training courses were begun, the hospital corpsman or pharmacist's mate, although called a pharmacist's mate, was not eligible for assignment to duty in the pharmacy before having completed and properly certified in courses fitting him for the compounding of prescriptions, handling of narcotics, recognition of dosage, and in general, a practical knowledge of the United States Pharmacopœia and the National Formulary. Usually such an assignment was given a top man and one with rate of pharmacist's mate first class or above. Such an assignment to a Navy pharmacy therefore was a specialty to which only a limited number of pharmacist's mates were delegated. The others were then assigned to one or more of the remaining specialties and, although each retained the pharmacist rate name, actually the man should more appropriately be known as a medical technician in each specialty. Thus, in view of this fact, of the total number of first class pharmacist mates in the Navy during pre-war times, only a few have completed sufficient training and experience in pharmacy to be justly called equal in this science to the average registered pharmacist and graduate of a recognized college of pharmacy. The Navy rate of pharmacist's mate or pharmacist should not be construed to mean that this man had all of the training comparable to a registered civilian pharmacist. Such is the case only of that pharmacist's mate who has specialized in a Navy pharmacy ashore or afloat and who has specialized in courses to this end and who has passed the necessary rigid examinations of the division. In such a case, the Navy pharmacist's mate has the same responsibility as the civilian pharmacist.

With the necessary accelerated Navy program following the outbreak of the present war, the need for pharmacist's mates has increased by the score. The pre-war picture has changed somewhat. Some drafted registered pharmacists have been placed directly into Navy pharmacies. A great number have not been. Three new hospital corps schools were established; one at Bainbridge, Maryland, one at Great

Lakes, Illinois, and the third at Farragut, Idaho. The entire hospital corps curriculum previously listed has been so reduced as to include generally the following courses:

<i>Course</i>	<i>Hours</i>	<i>Weeks Duration</i>
1. Hygiene and sanitation	25	2
2. Chemical warfare	10½	1
3. The principles and practice of nursing	44	2
4. First aid and minor surgery	45	2
5. Anatomy and physiology	35	3
6. Materia medica	17	1
7. Weights and measures	10	2

More than three thousand Navy hospital corpsmen are graduated with a certificate at the end of six to eight weeks of instruction from these three new and two permanent Corps schools. Of this number, a small percentage and only those who achieve exceptionally high standing upon completion of the course, are rated pharmacist's mate third class. The remaining majority are certified hospital apprentices second or first class. All of the graduates are sent to hospitals or shore activities for brief periods of additional instruction. From these stations some are further sent to duty with the various fleets, some to Marine mobile hospital units (combat zones), and others go to advance bases. Advancement in rate has been made faster than during pre-war time and generally more frequent examinations are given. More men than ever before are being prepared to serve independently of medical officers as representatives of the medical department ashore and afloat.

When a man has finished the basic elementary courses of the Hospital Corps schools as outlined above, he must acquire advanced training for raise in rate by study from prescribed Navy training courses issued by the Training Division of the Bureau of Naval Personnel. Completion of these training courses may be waived for those rated individuals who are sent to specialized study in any one of the several technical courses given at the Bethesda Naval Training Center or elsewhere. Likewise some civilian pharmacists, osteopaths, optometrists, chiropodists, embalmers, *etc.*, may by-pass lower pharmacist rates provided the commanding officer sanctions it. Often it has been the writer's experience to find graduates of recognized colleges of pharmacy and registered pharma-

cists who have not been given a rate higher than pharmacist's mate third class upon induction into the Navy.

For Navy pharmacist's mates to be eligible for advancement, in addition to the previously mentioned educational program, the candidate's conduct and proficiency marks must be as follows: (2) for advancement to Hospital Apprentice 1st class, Pharmacist's Mate 3d class, and Pharmacist's Mate 2nd Class, conduct 4.0* for 3 months. For advancement to Pharmacist's Mate 1st class, conduct 4.0 for 3 months and no mark less than 3.0 for nine months; proficiency average of 3.5 or higher for nine months. For advancement to chief pharmacist's mate, conduct 4.0 for 6 months and no mark less than 3.0 for one year; proficiency, average of 3.5 or higher for one year. For permanent appointment as chief pharmacist, conduct 4.0 for one year; proficiency no mark less than 3.5 for one year. Grades obtained and relative standing in any one of the advanced technical specialties are, of course, taken into consideration in advancement to higher rating. The length of time now devoted to post-graduate technical specialties has been slightly reduced. But the number of men sent to such advanced training has been greatly increased. The results of this situation where so many individuals are acquiring an interest in some phase of medical science may have far-reaching effects upon the enrollment of pharmacy schools in the post-war.

In confronting this situation the dean of a college of pharmacy and the secretary of a state board of examination might note that all Naval personnel who have been assigned to the compounding of prescriptions and responsibilities of the upkeep of a professional pharmacy afloat or ashore in the Navy are so assigned by virtue of their specialized training in the Navy post-graduate course at Bethesda, Maryland, and an apprenticeship in the field or these men are ex-civilian registered pharmacists and graduates of a recognized college of pharmacy. Their number is small and such assignments are considered choice billets in the Navy, for there are a limited number of pharmacies. The number of pharmacist's mates needed for other duties in the Navy Medical Department—duties such as clerical administrative work, ward and laboratory duties,

*4.0 is the Navy grade of 100. A grade of 2.8 is generally used as the minimum passing grade.

and commissary and ship's service work—are vastly greater. Both ex-civilian registered pharmacists and the beginning hospital apprentice may be found in this latter general duty assignment.

The post-war period will therefore bring several of both kinds of ex-pharmacist mates back to colleges of pharmacy. Many will feel themselves qualified to by-pass some of the courses of the college curriculum by virtue of their Navy training and medical experience. Others might wish to become candidates for state board examinations immediately. Still others will want to begin pharmacy from the beginning. In all cases, however, it should be remembered that the pharmacist's mate in the Navy is trained primarily to be an attendant to the sick and wounded. He is generally one versed in the knowledge of nursing, sanitation, and first aid. He is a pharmacist in the civilian professional sense of the word only when acting as a specialist in a Navy pharmacy. By necessity his knowledge of the art of compounding is limited even in most Navy pharmacies. Those men who so wish to study pharmacy as undergraduates or graduate students in the post-war should make their service records available through the Bureau of Naval Personnel to the pharmacy college dean. From an examination of each individual's record, wherein his complete Navy education, grades, and experience are duly filed, the pharmaceutical educator can judge as to what credit he wishes to extend. Further, a series of placement tests might be inaugurated to judge finally the ex-service man's abilities. In any event, the high ideals toward which most pharmacists are trying to elevate the science should be kept foremost in mind. An ex-Navy man properly guided would make a splendid addition to the supporters of these ideals.

REFERENCES

- (1) Handbook of the Hospital Corps, United States Navy, P. 1-3, 1939.
- (2) Outline of Medical Department Duties, USN NavMed #114, P. 24-25, 1943.

Dean Ivor Griffith gave the commencement address before the graduates of the Colleges of Pharmacy, Medicine and Dentistry of the University of Illinois on March 4. His subject was—"Education for Leisure as well as for Labor."

Editorials

A Museum for Every College

Not so many years ago most colleges of pharmacy taught no history of pharmacy, or only very little and then only incidentally and informally. With the increase in educational requirements the few history-minded teachers succeeded in a small degree to find places in curricula for a lecture here and there to present a limited picture of the historic background of our ancient profession. With the advent of the minimum four-year course, time became available for the inclusion in every course of study of a well-planned sub-course in pharmaceutical history, commensurate in scope with its importance as a cultural, classical, and scientific requisite in the adequate training of pharmacists. While this objective has not yet been attained universally its need has now been quite generally admitted and it is to be expected that soon all colleges will follow the example of those few colleges which for many years have given an adequately proportionate part of time in their curricula to the teaching of pharmaceutical history. Since shortly before my retirement in 1936, I have not kept myself fully informed of the progress of the individual colleges of pharmacy but I know of their collective advancement and I feel it can be taken for granted that all are giving more or less attention to historical instruction. It is here that I desire to suggest, after more than a half century of experience in teaching history, that the greatest degree of success in presenting in an adequate and interesting way the historic background of our profession, is to strengthen the didactic with laboratory instruction. A good collection of historical pharmaceutical items, that is, a pharmaceutical museum, is essential to the visual course instruction. Very few colleges have such facilities. I know that some are endeavoring to get them and that they are meeting with difficulties because of the scarcity of the supply and also because of the high cost of available items. A few colleges started collecting many years ago. I started in 1884 and when I was called in 1892 to organize the College of Pharmacy of the University I used my modest collection to illustrate my lectures on history. Since then the collection has grown through college ac-

quisition and through the earnings of a fund I established at the University of Minnesota for the purpose, to a total of over three hundred representative pieces. It is not my purpose to describe this collection nor the procedure of its acquisition, although I would be willing to do so if there were enough interest to warrant my doing so. My present purpose is to encourage and stimulate the growing recognition of the need and value of a wider familiarity with historical pharmacy, especially on part of the coming generations. A very significant evidence of this growing interest in the history of pharmacy is the recent organization of The American Institute of the History of Pharmacy, with headquarters at Madison, Wisconsin. The Director of the Institute is Dr. George Urdang, the most prolific writer and most widely informed man in the subject of pharmaceutical history in America, according to my judgment. He could render valuable service in outlining and establishing pharmaceutico-historical courses for colleges not now offering such courses. I do not know that he would be available. I have not spoken to him in that matter. Personally I wish pharmacy, in its own interest, would capitalize him more fully for the development of more pronounced historical activities.

What American pharmacy needs and is now on the eve of achieving is a much more universal history consciousness. The colleges should sponsor and carry out this educational work, and I believe they will.

Frederick J. Wulling

Pharmacy Takes Part in Education Conference

A unique event in the affairs of Virginia education to which pharmacy contributed its mite, was the educational conference held at Radford, Va., August 25-September 1.

Representatives of all educational levels—primary, secondary, high school, college and professional schools were present. The delegates, some 90 in number, completely pooled their experiences, plans and hopes in a fashion that was truly amazing to the uninitiated among us.

The group was the most representative gathering of school men with which the author has been privileged to work. So completely sold on the methods employed and the objectives set up were the great majority of those taking part in this conference, especially this scribe, that he has the temerity to set down briefly some of the observations made as a result of the meeting.

It should be stated at the outset that the School of Pharmacy was selected as one of the representatives by the Medical College of Virginia because pharmacy's educational program is now on a basis comparable to that of engineering, forestry, education, and many other professions granting a bachelor's degree.

So far as we are aware, this meeting was the first time pharmacy has had an opportunity to make its contribution in the planning of a better educational system in the state.

It is impossible to present a complete picture of all that transpired at the sessions, but some of the more important observations made are herewith presented.

First, the State Department of Education acknowledges that our school system is woefully weak in many respects. The department is determined that these weaknesses be corrected. To this end, every possible effort is being put forth to place Virginia education on a par with the best in the nation. The fact that this meeting was held is just one indication of the department's determination to accomplish this task.

Second, the job cannot be done by the education personnel alone. It requires the wholehearted cooperation of all Virginians. The citizens of the state must be willing to have more money appropriated for the schools. Furthermore, they must work actively with the educators in their community so that they will understand the difficult problems which are presented.

Third, there is a serious need for more adequate training of teachers. Teacher training standards are to be raised but to do this requires: (1) More funds for teachers' colleges in order that their work and personnel may be improved; (2) Better pay for the teachers meeting the higher standards so

that sufficient remuneration will make teaching a financially worth-while career.

Fourth, many of the plans for developing a better school system are already worked out, and the leaders to put them into operation are now in the Department of Education. Part of the personnel for carrying out the plans is already in the schools. The big *need* is for completion of this group so that the program laid out may be satisfactorily fulfilled.

Meetings of this type should prove invaluable to pharmacy over a period of years. For too long we have studied our problems as though they were peculiar to pharmacy alone. The basic problems confronting us are the same as those found in all other fields. By seeing the picture as a whole, and adopting plans made by groups such as gathered at Radford, we should be able to make improvements all through our profession. Let us hope in turn that pharmacy will make contributions of value to others. It is a challenge to pharmacy. One we cannot fail to meet.

Thomas D. Rowe

What Is a Pharmacist's Mate?

In the U. S. Navy a "mate" is the person who is a subordinate assistant to a warrant officer and these mates are classed as petty officers. The service which the warrant officer renders, or his job, determines the classification of his assistants or mates—thus the warrant officer who is the head carpenter has carpenter's mates and the chief pharmacist has pharmacist's mates.

We do not question the validity, correctness or propriety of other types or classifications of mates because we assume that the apprentice system still prevails in many trades and non-professional callings; thus after a due period of time and training the apprentice obtains the knowledge of the master and can go forth fully qualified. In fact, his admission and rank in trade unions is based on his apprenticeship. Thus we are led to believe that the carpenter's mate is a carpenter,

and from those we have spoken to, they admit that they are carpenters.

However, when it comes to the classification of professional personnel, it is most unfortunate that the term "Pharmacist's Mate" still exists in the Naval Services. We do not believe that the use of the term "Pharmacist's Mate," when applied to those who assist in pharmaceutical work and who are not registered pharmacists, is correct. When a person states that he or she is a pharmacist's mate, be it 1cl, 2cl, or 3cl, it infers that the holder of the rank is a pharmacist and in the vast majority of cases this is entirely incorrect.

Not so long ago we heard a proud mother say that her son was doing well in the Service—why, he was now a first-class pharmacist and wanted to practice pharmacy when he got out of the Service! How sad is this misunderstanding. How can we explain to those who know less than ourselves about these things or who are not familiar with the requirements to become a pharmacist and practice it in civilian life. Too often many persons know that it has not been so long ago when "little Johnny" worked at the drug store fountain or as a delivery boy and then years later he took some sort of examination (in some states) and became a qualified assistant pharmacist and then later he became a registered pharmacist.

The public as a rule, and in general, do not follow the advances in sciences; they depend upon their leaders, the press, their educators and their government to see that adequate protection is afforded them in many things and especially as regards the public health. Therefore, we, as pharmacists, have been remiss in our obligations by permitting this misunderstanding to pervade and continue up to the present.

In the Services do you find the term Doctor's Mate? Do we find Nurse's Mate? Do we find Veterinary Mate? (The Coast Guard and Marines do have horses but we do not know if they have veterinarians.) Do we find Dentist's Mate? Certainly you don't, but if the true system were followed the nurse would be the assistant to the doctor—hence a Doctor's Mate; many doctors are only assistants to the surgeon but they are not classified as mates. The dental technician is not a Dentist's Mate.

In this war as in World War I there were many graduate registered pharmacists holding non-commissioned rank in all the services. Today there are untold numbers of graduate registered pharmacists with the lowest rank of non-commissioned officer serving under persons of higher non-commissioned rank who have less knowledge, training and many times less experience in pharmacy than those under them. Likewise, with the admission of females into the services allied with the various branches such as WAVES, WACS, SPARS, etc., many of our college trained graduate registered pharmacists who have enlisted are serving in the medical services. On June 6, 1944, this piece of "news" appeared in the columns of the New Orleans Item under the heading, "USCG Seeks 200 Spar Pharmacists":

"To meet the need for 200 additional pharmacist's mate billets for qualified Coast Guard SPARS, the Women's Reserve of the U. S. Coast Guard Reserve is seeking women for the training, and SPARS eligible to be trained for the work. The latter selected will be sent to the College of Pharmacy at Columbia University in New York City for three months' special training. The first course there will begin on July 3.

"Accepted civilian applicants will go first to the U. S. Coast Guard Training Station at Palm Beach, Fla., for the usual six-weeks basic training, after which they will take the three-month course at Columbia University. Information about these training courses and qualifications for service in the Women's Reserve of the Coast Guard may be obtained from the Coast Guard recruiting office at 146 Baronne Street."

Will the parents, friends and the public in general believe they are pharmacists qualified to compound and dispense the physicians' prescriptions in civilian life?—John F. McCloskey in *The Louisiana Pharmacist*.

A check list of serials*pertaining to pharmacognosy and pharmacology by Dr. George M. Hocking which was published in the April, 1943, number of the American Journal of Pharmaceutical Education has been revised by Dr. Hocking and printed in pamphlet form by S. B. Penick & Company of 50 Church Street, New York. Copies will be supplied on application.

The President's Page

Each year the Association has one meeting that is national in scope of attendance. All member colleges try to be represented if at all feasible. This is no mere tradition, to be observed for sentiment's sake. It is a custom born of knowledge. Knowledge that when there are things to be done, issues to be met, problems to be faced and solved which affect many people in many places, the only practical procedure is that of a conference.

Even though we recognized the futility of effective Association work without an annual meeting, the decision to convene was not an easy one to make. For a while it was thought that the war year of 1944 might be an exception. The decision, when finally made, was in keeping with the principles covering war time travel laid down by the Office of Defense Transportation, and in consideration of our responsibility in a national way for maintaining the integrity and strength of pharmaceutical education.

The meeting is for business only. There are no scheduled social events. A program of conferences and general sessions is prepared which deals directly and forcibly with our current and future problems.

Problems always beset us. No organization responsible for activities, national in character, particularly in the public health field, is ever without them. War adds to this burden and the deeper we are enmeshed the heavier it becomes. We are now in the third year of conflict and have faith that we are past the median line. This means that while we have problems of war we must concern ourselves seriously with the problems of post war.

We can no longer delay organizing our thinking and directing our Association activities toward the anticipation and solution of these post war situations. We must be ready when their force hits us directly or they will become dilemmas. It is evident that we have a double load this year.

Much of the routine of the Association, and the preliminary work of special groups, for example, the gathering of data, the canvassing of general opinion, and the main-

tenance of essential liaisons is done by letter or individual contacts. The final deliberations and decisions on issues, policies, or procedures, however, are effectively made no history of pharmacy, or only very little and then only individual contracts. The final deliberations and decisions on issues, policies, or procedures, however, are effectively made only in general sessions or in assemblies of full committees. It is incumbent upon the men and women of every college, therefore, to be in attendance at Cleveland this September 6th to 8th.

I earnestly urge you to make the sacrifice of time, energy, and personal comfort required by your presence. Academic pharmacy will be in your debt for it. You will be well repaid in that through our mutual gathering you will receive the strength of common purpose and the clarity of a broader vision.

RESEARCH GRANTS AVAILABLE

The American Pharmaceutical Association Committee on Pharmaceutical Research announces the availability of certain limited funds for research grants.

These grants are to be made by the Council on the recommendations of the Committee. They are to be made on the premises:

- (a) the extent which the award will serve to promote pharmaceutical research;
- (b) whether the award supplements the A. Ph. A. laboratory program;
- (c) the qualifications of those who will perform the work for which the award is made and the facilities of the laboratory where the research will be conducted;
- (d) preference will be given to applications wherein the award will supplement a contribution from the institution or laboratory in which the research will be conducted.

Application blanks may be secured from Chairman Ivor Griffith, 43rd and Kingsessing Ave., Philadelphia.

In the closing hours of the 1944 convention of the Nebraska Pharmaceutical Association a resolution was passed unanimously to the effect that the druggists of Nebraska are opposed to any letting down of the requirements for the study and practice of pharmacy, now or in the post war period.

The Editor's Page

The Eisenhower family of Kansas is a remarkable family. There were six brothers. Dwight has become one of the world's master military minds; Milton S. has become an outstanding investigator, educator, journalist and administrator of our time. The eldest of the six brothers became a pharmacist which shows the family thought well of our profession. But it was not because of this fact (although it might have well been) that the editor asked Dr. Eisenhower for the privilege of publishing the Honors Day Address which he delivered at the University of Nebraska in April, but because Dr. Eisenhower has with great clarity painted a picture of what is necessary to do to attain the objective we are fighting for, and for the moment the most important objective for us all, a just and an enduring peace. That objective can be attained only when we know the rest of the world and the rest of the world knows us and he cites concrete instances from his own experience showing how little our own flesh and blood and our nearest neighbors on the other side of the Atlantic understand us. If they lack understanding there is even more reason why the Russians, the North Africans, the Asiatics and even the South Americans should be confused as to our objectives. Dr. Eisenhower points out almost dramatically the type of propaganda which has been flung around the world which gives the rest of the world a misconception of the true character of the American way of life and finally he is constructive in pointing the way that will lead to a world wide understanding and an era of hope and progress instead of despair and destruction.

I hope that I will not be considered as passing from the sublime to the ridiculous when I say that in my day the condition that Dr. Eisenhower has pointed out as existing between nations has existed within the body pharmaceutic. We have in our bailiwick of the pharmaceutical sphere been not only suspicious but antagonistic to others in other bailiwicks of the same sphere. Especially has the educational bailiwick been antagonistic to the industrial and the industrial has not been any too cooperative with the educational and frequently the legislative bailiwick has not been sympathetic with either, and therein is the reason why American pharmacy has not

been able to present a solid front comparable to medicine. This antagonism, varying at times in its mildness, has also been responsible for the lack of support by the pharmaceutical industries of pharmaceutical education and research in our universities and large sums of money made in the industry have gone to the enrichment of medical or general education and comparatively little to pharmaceutical.

For many years the National Drug Trade Conference was viewed with suspicion. The feeling ran whether right or wrong that the commercial elements represented, outweighed the educational and the professional. But it was in this Conference that the various aspects of pharmacy began to know each other and began to understand and appreciate each other's problems and it was out of this Conference that certain viewpoints crystallized and the American Foundation for Pharmaceutical Education emerged as the first fruit. The Foundation has tremendous potentialities if properly directed and we believe it will be. There are those who are yet suspicious of the intentions and fear the power the Foundation may exert. But I for one cannot visualize that that money, should it go to the support of pharmaceutical education, can do any more harm there than it can if it continues to go where it has been going into hospitals, and medical education and medical research or to such universities as the University of Chicago for general education or into the coffers of my church (Presbyterian). There is printed in this issue an address by Mr. Edward S. Rogers which he delivered recently before the annual meeting of the National Association of Chain Drug Stores. In private life he is chairman of the Board of Sterling Drug Inc. He is a member of the Board of Grants of the American Foundation for Pharmaceutical Education. The address shows the keenest insight and expresses the soundest judgment and highest idealism of any address that I have yet seen in print. Only in one point do I raise a question and in that point Mr. Rogers does not necessarily concur. He simply raises a question as to whether there is not a place in pharmacy for a trade school which would graduate men in two years as licentiates for the routine work in pharmacy. There is not. There can be no such thing as a half pharmacist any more than can be a nation half slave and half free. Some states created the position of assistant pharmacist years ago. They have regretted it ever since because they found soon

that the assistant pharmacists were doing everything the registered pharmacists were and unqualified men were endangering people's lives under the role of the assistant licentiate. A parallel is to be found in the history of medical cultism. Take the osteopath for example. He started out as a manipulator and was licensed as such. Soon he insisted he was doomed unless he was also allowed to practice obstetrics. Then he could not practice obstetrics without giving anæsthetics. He was granted the privilege. Then if he could give anæsthetics intelligently and safely why could he not give laxatives and respiratory stimulants? Pregnancy is a physiological state but child birth has become a surgical operation. If the osteopath was allowed to preside at one surgical operation why should he not be allowed to repair injured structures after the operation? If he could repair such injuries caused by child birth why could he not perform other operations? If he could do all kinds of surgical operations, why should he not operate his own hospital with his own staff, perform all kinds of surgery and protect himself by calling in to view the operative procedure, a regularly licensed medical doctor, a follower of goat gland rejuvenation, a medical missionary, a Presbyterian elder and a member of my church, whose wife is an ordained Presbyterian minister. If one wants documentary evidence, the court records of the state of Nebraska are available for inspection. I mention this not to injure my church (I take great pride in my church, its traditions and its accomplishments) or my professional brethren, but to show the danger of getting pharmacy in the same unenviable position medicine is. There are no cults in pharmacy. There can be no trade schools for pharmacy any more than can there be for law or dentistry or medicine. A man is either a pharmacist or he is not.

Mr. Rogers by the soundness of his argument and the clarity of his statements has done much to instill confidence in the body pharmaceutic in the work and objectives of the American Foundation for Pharmaceutical Education.

The program setting forth the objectives of the National Pharmacy Committee on Public Information Inc., is printed on another page. The reading of the objectives is sufficient to fill one with enthusiasm as to the possibilities of this committee. However, since this committee has begun its work a

feeling has arisen, expressed by many of our most thoughtful men that the type of publicity being put forth and directed toward the public will not produce the results hoped for. Dean A. G. DuMez expresses the opinion of those men who are most interested in the future of pharmacy when he says—"In my opinion, no amount of propaganda whatever its kind or source will raise the prestige of pharmacy until the conditions which are responsible for the low esteem in which pharmacy is now held are corrected. The public forms its impression of what pharmacy does and what it stands for solely from its knowledge of the drug store which it visits frequently. The prestige of pharmacy will never be raised in the eyes of the public until there is created in and about the drug store a professional atmosphere. In my opinion, this cannot be accomplished by creating a drug department in a general merchandise emporium or by over-emphasizing merchandising or beverage and lunch room service in a non-departmentalized store.

"If the National Pharmacy Committee really wishes to raise the prestige of pharmacy, it should in my opinion, begin by correcting the conditions which are responsible for the position in which pharmacy finds itself at the present time; in other words, it should direct its propaganda to the pharmacist in an endeavor to compel him to clean house. Later on when these conditions are corrected, propaganda of the right kind directed to the public may be helpful."

Dean DuMez is right and every thoughtful druggist and every educator worthy of the name will stand back of that declaration. In public relations propaganda, as regards pharmacy, one of the fundamental mistakes that has been made to date is the placing of this propaganda program into the hands of public relations experts that do not understand the pharmaceutical problems. If the National Pharmacy Committee on Public Information, the membership of which I know to be composed of able and high-minded pharmacists, would see to it that the proper propaganda is aimed at the proper target it would be more effective and their objectives would be attained with less effort and with greater dignity.

There is nothing more educational for a man than to look at himself as others look at him and that applies to a profes-

sion as well. Dr. Morris Fishbein is responsible for the statement that when a profession finds itself the subject of ridicule it is time for that profession to seek out the causes and correct them. The time has come when we must look at pharmacy as the intelligent layman looks at it and we must pay attention to his criticisms if we are to regain or maintain his respect. The viewpoint of such a layman is to be found in the commencement address delivered before the 1944 class of the School of Pharmacy of the University of Maryland by Mr. Simon E. Sobeloff, city solicitor of Baltimore. The address is printed in this number. Mr. Sobeloff discusses the problems understandingly and sympathetically. He has a conception of pharmaceutical service over which many a pharmacist may ponder to his own advantage and that of his profession.

The time has not only come for us to look at these things but to act. What we need is not high sounding words but a change not only in the complexion but in the atmosphere of the drug store. Nothing short of this will convince the layman that pharmacy is a public health profession and the pharmacist is a professional man.

News comes, and good news, that the Remington honor medal for 1944 has been awarded to Dean H. Evert Kendig. As I recall the recipients of the Remington medal in the past I am satisfied that it has never been conferred more worthily nor will it be borne with greater dignity than by the present incumbent. The pharmaceutical press is and for some time to come will be brimming full of the dean's accomplishments which culminated in the legislation which established a Pharmacy Corps in the United States Army. I have on previous occasions said some very nice things myself, about Dean Kendig, and they were said in great sincerity. But as I write this I am thinking of many, many men who struggled at this job through the major part of four decades doing the spade work in order that these latter day efforts might bear fruit. That spade work was back breaking. Men struggled incessantly without making any apparent progress. For them there was nothing but criticism and discouragement. That was the only reward many of them ever knew. But their efforts never ceased. If they had, the Pharmacy Corps legislation would still be hanging fire. There are parallels in other fields of activity. It is true in my church. Once we had a pastor,

pregnant with ego, who never tired of telling us how he took this church when it was a shoestring and made a great church out of it. Not one word did he have for the hundreds of the faithful who organized the church and carried it through the years of struggle when the foundations were being laid. As a matter of fact he got things reversed. The church was the shoe and he was the shoestring. He cracked. The shoe still stands. There are thousands of bodies of young men now rotting in foxholes or in steaming jungles who did the spade work that victory may be ours. They will not be present and will be very largely forgotten when the grand fanfare comes. But who can deny that these men did not lay the foundations for victory? So in our own bailiwick let us not forget the efforts of those men who have made our accomplishments possible. Dean H. Evert Kendig would be the last to have it otherwise.

Dean John F. McCloskey hits the nail squarely on the head when in the editorial pages he raises the question "What Is a Pharmacist's Mate?" His argument against such a designation for a rank is sound all the way through. Lieutenant Youngken's article in this issue on "Pharmacy in the Navy" only deepens our conviction that the pharmacist in the Navy is being trained away from pharmacy. The amazing thing is that the Navy which in all other respects seems to be so meticulous in its attitude should be so confused as to what a pharmacist's duties should be, namely the thing he has been trained to do. Perhaps the Navy, like the layman, got its conception of the work of the pharmacist from the appearance of some of our "modern" drug stores. If so, then there is another argument for the druggist to change the complexion and atmosphere of his store and give it a more professional appearance. He might be improving the pharmaceutical service in the Navy.

The baccalaureate sermon of the year that drew the most fire and adverse criticism was delivered in May at the University of Nebraska by the distinguished minister, scholar, educator, lecturer, and writer, Lloyd C. Douglas. The substance of the statement responsible for the broadside was that the world is very bad, that it had always been bad and that the graduates should not expect to see any great change in the

future. Human nature will continue to be very much like it always has been. I cannot understand why a man should be so severely criticized for telling students the truth on commencement day when that is what we have been trying to do during the whole period of undergraduate instruction. He showed the graduates the problems they were up against as they went out into the world. He told them they had been trained and were qualified to undertake the task of making a better world, and if they had the will to do it, it could be done. He cleared the deck for action. I know of no greater challenge to put before a class. The very challenge is inspirational.

And that brings us to post war pharmaceutical education. There seems to be a belief infiltrating the educational group that we have a great problem ahead of us educating or rather re-educating pharmacists and former pharmacy students who have been in the service. If I understand human nature I am convinced that the pharmacist who has served in the armed forces, when he gets back will not be thinking of going to school and taking a cram course for three or six months to "bring himself up to date." He will be thinking of getting back to his job, or his store and his family and friends. After he is at home again and life has taken on its usual routine then he may be interested in a refresher course of a few days or a week at most. As I write there comes to my desk an announcement of what seems to me to be an ideal course for this group. The Massachusetts College of Pharmacy has planned a three-day "refresher program" in which a member of the National Pharmacy Committee on Public Information will discuss the committee's objectives and outline the technic to be used in its work. Various members of the faculty will discuss such subjects as the chemistry and pharmacy of enzymes, developments in the field of insecticides, the stability and compatibility of several ointment bases of the emulsion type, the methods of the growth and production and the determination of the potency and purity of penicillin, the new amines that have come into pharmaceutical prominence, and the procedure in filling troublesome prescriptions. While this is called a "Refresher Course Program" it might be well to call it an "Inspirational Course Program" with emphasis on the inspirational aspect for it seems to me that inspiration should

be the chief objective of such a course. That is what this group needs and that might better be the purpose of all annual short courses for mature pharmacists.

The returning student who has practically completed his training will expect to pick his college work up where he left off and rightly so because that is what he has been trained to do.

For the student beginning his pharmacy studies, our problem is to stress the basic sciences, and organize our professional training along more scientific pedagogical and less chaotic lines. It is the same problem that we would have had if our educational program had not been disturbed by a war. Better basic and pharmaceutical undergraduate teaching and training men for pharmaceutical research will be our most important post war educational problem. We should plan and prepare for it now.

I have in my possession a circular letter from the War Department Army Service Forces, Seventh Service Command, Headquarters Omaha Offices Procurement District. This letter is addressed to Judge E. B. Chappell of the Nebraska Supreme Court who is also a graduate in pharmacy. After an appeal for names of women who might be interested there is listed 24 different lines of activities in which women are needed in our offensive war effort. First in the list is "Pharmacist Technician, to operate in hospital and dispensary pharmacies. Must be a graduate pharmacist, holding a state license. May receive rating of Technical Sergeant." Second in the list is "Pharmacist Aide, serves technician. Must be a high school graduate with either work or experience in a field where knowledge of pharmaceutical or chemical terminology would be acquired. (Notice the great effort to keep from using the word "drug store.") When Judge Chappell appealed to me for help I raised the question how could the War Department expect us to supply them pharmacists when they take our students away from us so we have no students to teach and when they take our faculties away from us so we have no teachers to teach the students if we had any? Already in this vicinity there are four hospital superintendents who are begging me to supply them with regis-

tered women pharmacists and they are not to be had. I also recall that only a few months ago it was claimed the Army had no need of pharmacists.

Again I did not become pregnant with enthusiasm when I received the announcement under date of June 14, from the National Pharmacy Committee on Public Information that Dr. Thomas Parran, Surgeon General of the United States Public Health has written a letter to retail pharmacists requesting their aid in a nationwide drive to recruit additional nurses for the United States Cadet Nurse Corps. Dr. Parran's request reminds me of some men in my town. They have no use for the church but when they want to put a community chest drive over they turn to the church as a most important boosting organization. When Dr. Parran says "I believe pharmacies can be of inestimable service to the United States Cadet Nurse Corps recruiting program, because of their outstanding position as the community health center" he sounds tremendously Bernays-like. He is telling us something we have known ever since there were pharmacists and pharmacies. The pharmacist has always been willing to shoulder more than his share of the burden for the public welfare or to help win the war and he deserves more substantial recognition in the way of salary and rank and opportunity to serve in a professional way than the public or the Army or the Navy or the Surgeon General's office has ever been willing to give. Our field of service lies primarily in the field for which we are trained and not to become a recruiting agency for other lines of human activity.

The time of the Cleveland pilgrimage approaches. The tentative program is printed in this issue in as complete a form as it is possible at the time of going to press. These are momentous days full of possibilities for pharmacy. What we do now will affect pharmaceutical education and practice for years to come. Let us go to Cleveland in the spirit of friendliness, helpfulness and comradeship which is the pharmaceutical tradition and leave nothing undone that will weld the various phases of pharmacy into a united profession. It can be done.

Rufus A. Lyman

Gleanings from the Editor's Mail

"In my conversations with people, I find more and more of them expressing dissatisfaction with the present type of drug store and I have about reached the conclusion that the time is ripe to start a national movement to create a real professional atmosphere in and about the drug store. In my opinion, pharmacists could immediately take down all signs advertising tobacco, liquor, food, beverages and merchandise from the exteriors of their establishments, take the liquor, tobacco and merchandise displays out of their show windows and make the interior look dignified and professional. It is also my belief that this could be done without any serious impairment to volume of sales or to net profits. If these improvements were made as a first step in cleaning house, the next move would be to eliminate as many of the extraneous services now rendered by pharmacists as is economically practical.

"Of course, I realize that the drug store in a small community will have to continue to give some of these extraneous services if it is to eke out an existence, but even a drug store in a small community can be dignified and professional in appearance, both internally and externally."

University of Maryland
June 14, 1944

A. G. DUMEZ

To Dean DuMez:

"It is my conviction in connection with this whole subject of the number of retail drug outlets, that some serious thought should be given to ways and means of more adequately limiting the distribution of drugs and medicines to pharmacists. In other words, there should be some basic principle controlling our actions.

"It has always been my feeling that drugs and medicines should be distributed through professional channels, a belief which makes me highly dubious of the wisdom of curtailing the number of pharmacists if this necessarily means an increase in the number of stores handling drugs and medicines, but having no professional supervision.

"The number of so-called package medicine stores has greatly increased, a situation which will become more intensified as the shortage of pharmacists becomes more pronounced. So, in order for me to become enthusiastic over greatly reducing the number of drug stores, I would be compelled to discard my belief that there is danger in the indiscriminate distribution of medical preparations and that the public interest demands restricting the distribution of drug products to pharmacists.

"So, it seems to me that the first step should be to secure more adequate control over the distribution of drugs and medicines before we are forced to the conclusion that it matters little who handles them, provided we bring about a reduction in the number of drug stores. Which is more important, protecting public interest in the distribution of drug products or sharply curtailing the number of drug stores?

"You are completely correct, however, in your statement that the retail drug store holds the key to the improvement of pharmacy's public

relations. The public will regard the drug store as a professional public health institution when, and only when it merits this recognition. In other words, the level which pharmacy occupies in public estimation is, after all, a reflection of the attitudes and habits of pharmacists themselves."

New York
June 5, 1944

ROBERT L. SWAIN

I presume this type of letter should probably go to the editor of the Practical Edition of the Journal of the American Pharmaceutical Association because it deals with the editorial on pages 158-159 of the June-July, 1944 issue. Then again, I believe that since your journal is the mouthpiece for the teachers of pharmaceutical subjects I am rather inclined to believe that we should be the ones to criticize such articles in our own journal.

I for one want to go on record as not being in favor of the statement that pharmacy is on shaky grounds when we must retain the mystery of the apothecary. From my very limited knowledge of several years of psychological study I am firmly convinced that the healing of the body is largely through the mind, and so long as one can maintain an aura of mystery and keep hidden from patients many facts the healing process can continue safely and efficiently. May I call to the reader's attention that if there is one profession which is still hallowed with mystery and which is endeavoring to be built up with as much mystery as possible it is the medical profession. I would further like to call to the editor's attention that the moribund state of Latin is not due to medical education but primarily the fault lies in the high schools which have developed a curriculum that caters, within the past few years, to the great expansionists. Our own high schools have been relegating Latin and Greek to the limbo of overdone and unnecessary subjects primarily to make room for economics, shop work, football, and the practical trades.

The editor of this journal starts out with a statement that the pharmaceutical burial to the dead language of Latin is intended as a rational and progressive step but in reality it is an admission of our own shortcoming and of our poor courage in not maintaining certain high standards and requirements and of insisting on safety factors for the guidance and control of medicinal items.

The medical colleges have advanced so far with their own specialties that they are unyielding, but they did practically eliminate any place for pharmacy from their curriculum. The pharmacology course is the last important vestige which they utilize, and I wonder if the physician will be willing to change his Latin and his Greek to name the diseases of the human body—which are classed as the prime needs in medical terminology—and therefore I wonder if we are sensible when we forego the only scientific basis that we have for drugs merely because the physician is not willing to learn the Latin names of drugs and drug products.

If we must make changes and if we want to be in the progressive era, let us adopt short, coined names—trade mark them if necessary—

for our National Formulary preparations and give them those catalogue names which the manufacturers have found so successful.

In conclusion, I for one feel that every time pharmacy gives up any of its last remaining privileges or rights, such as the elimination of the apothecaries system of weights and measures and the discarding of Latin, that we are demonstrating to the professional world at large that we are willing to forego anything to gain recognition. This is an erroneous procedure because pharmacy does not have to give anything to gain recognition—instead it needs honest, sincere and fearless workers to carry forth its standards.

New Orleans
July 15, 1944

JOHN F. MCCLOSKEY

You may remember that some years ago you reviewed in a very cordial manner my Textbook of Pharmacognosy. Incidentally, a new edition should be completed this summer.

Although I correspond more or less regularly with Dr. Bienfang of Oklahoma and Dr. Wirth of Chicago I should welcome correspondence with yourself or members of your staff.

We understand here that much closer contact between American and British universities is contemplated after the war and that Nebraska and Nottingham are mentioned together in this connection.

Should any American pharmacists find themselves in Nottingham during the war I hope they will visit us.

I enclose a copy of our School Prospectus and should be glad to have one of yours.

Nottingham, England
March 23, 1944

G. E. TREASE,
University College
School of Pharmacy

You may be interested to learn that our Board of Grants has requested us to take up with the directors of the Foundation the question of providing funds for graduate fellowship work. We believe one of the chief reasons for this request is the feeling that we need to do more to produce teachers.

New York
May 23, 1944

E. L. NEWCOMB,
Secretary

You will be interested to learn that the Foundation Executive Committee has requested our Board of Directors to make a substantial fund available to the Board of Grants for immediate use for fellowship awards. If this is approved our Board of Grants should begin to function in support of graduate work in the near future.

New York
July 31, 1944

E. L. NEWCOMB,
Secretary

Pharmaceutical Education on the March in War Time

University of Colorado, School of Pharmacy.—The laboratory work has been increased in dispensing pharmacy, synthetic drug products and in operative and manufacturing technic. Added courses in pharmacy for students in nursing both on the campus at Boulder and in Denver.—Added graduate courses leading to the degree Master of Science.—Improved laboratory facilities, especially for the washing and cleaning of apparatus.—Added over \$200 worth of reference books to the library.—Altered the curriculum to allow for more elective courses without dropping any of required professional courses and without decreasing the clock hours of didactic and laboratory instruction.—The entire graduate faculty of the University has been reviewed and Professors O'Day and Sprowls have been added to it.

University of Michigan, College of Pharmacy.—The curriculum has been completely revised. The desirable objectives gained are: greater flexibility in elective subjects, a more satisfactory sequence of courses, greater emphasis upon the biological aspects of pharmacy and better harmony with the Pharmaceutical Syllabus. Because of the relatively small enrollment there has been a minimum of difficulty in putting the new curriculum into operation.—Tentative plans are now being considered for an addition to the Chemistry and Pharmacy building. It is expected that pharmacy will be assigned considerable space in the proposed addition.—With the acquisition of the Harry Helfman Pharmacy Student Aid Fund of \$30,000 considerable financial aid will be given to deserving students.

University of Minnesota, College of Pharmacy.—Rebuilding of the greenhouse adjacent to the pharmacy building has been completed at the cost of \$10,000.—A considerable amount of equipment has been added in various departments. Among the more important items are a bacteriological incubator, a Brown Indicating Elective Potentiometer, a high pressure hydrogenator, six chainomatic analytical balances, and a large amount of standard-taper, interchangeable glassware.

University of Nebraska, College of Pharmacy.—Dr. H. G. O. Holck received a grant of \$250 from the University Research Council for the study of picrotoxin and one of \$200 from the American Medical Association to continue studies on the relation of sex to drug action.—Dr. D. M. Pace received a grant of \$285 from the University Research Council for apparatus for the study of cellular respiration and one of \$250 from the Society of Sigma Xi for the study of the effect of drugs on cellular metabolism.—New apparatus for research purposes include a semimicrobalance and an automatic calculator.

Medical College of the State of South Carolina, School of Pharmacy.—A number of scholarships covering the cost of tuition, fees and books have been established by the pharmacists of Charleston.—A new million dollar hospital is now under construction adjacent to the college, and

plans are being laid so that with these added facilities, hospital pharmacy may be more fully emphasized.

Medical College of Virginia, School of Pharmacy.—New equipment includes an electrotonic photofluorometer for Thiamine and Riboflavin assays, a new muffle furnace and a Leitz electrotitrator.—Eighteen scholarships were available for the 1944-45 session, ten of which have been awarded. The pharmacy loan fund now amounts to \$4550. Collections for this fund were begun last year. The entire amount has been by pharmacy alumni and others in the state interested in the advancement of pharmacy.

State College of Washington, School of Pharmacy.—A \$5000 permanent fund to be known as the George H. Watts Scholarship Fund has been established by Mrs. George H. Watts in memory of her husband who was head of the School of Pharmacy from 1896 to 1912. The proceeds of the fund are to be used for scholarships for pharmacy students.—The Lederle Laboratories have given a grant for a research scholarship which has been awarded to Charles F. Martin.—Besides the four American Foundation for Pharmaceutical Education Scholarships awarded during the year, seven \$25 scholarships given by several Women's Auxiliaries of the Washington State Pharmaceutical Association, one \$90 one given by the Washington State Pharmaceutical Association, and a \$50 one given by the Spokane Branch of McKesson-Robbins have been awarded to undergraduate students.

DR. WARNER W. STOCKBERGER

With regret we note the passing of Dr. Warner W. Stockberger at the age of 71, in Washington. Until his retirement last March he was a special advisor to Secretary of Agriculture Wickard. Upon his retirement the Secretary appointed him a collaborator for the department.

Dr. Stockberger was a graduate of Dennison University. He was given the masters degree by Ohio State. He won Phi Beta Kappa honors in his undergraduate days. He was a member of Sigma Xi, the American Pharmaceutical Association, the Botanical Society of Washington and many other scientific and civic organizations. He was the author of many articles on medicinal plants and a frequent contributor to scientific journals and to the *Book of Rural Life*. At the time of the first world war he was in charge of the drug and poisonous plant investigations for the Department of Agriculture. He will be best remembered by the educational group for his helpfulness in those days in establishing drug plant gardens all over this country. His great effort was to place drug plant culture upon a scientific basis and create an American drug plant industry. Those of us who were privileged to work with him will hold his memory in esteem and with affection. Such men do not die.

Surviving are his wife, the former Maude N. Streeter of 500 Black Cedar St., N. W., Washington, and a daughter, Mrs. Lucile S. Boyer.

RUFUS A. LYMAN

Notes and News

Alabama Polytechnic Institute, School of Pharmacy.—Twenty-one students are enrolled in the summer quarter, nine of whom are women and three former service men. Only two men will graduate at the end of the session.—The Alabama Pharmaceutical Association has provided a number of scholarships for undergraduate students.—Prof. A. F. Nickel is now a Lt. J. G. in the Navy. At present he is registered in the communications school at Harvard University.—Prof. George W. Hargreaves has been appointed, by President Duncan, a member of a special faculty committee of the Southeastern Conference for the study of post-war athletic problems. The committee had its first meeting at Biloxi, Mississippi, July 10-11.

University of California, College of Pharmacy.—Dr. Carl L. A. Schmidt has retired from active administrative duties and will devote his entire time to teaching and research in the field of biochemistry.

University of Colorado, College of Pharmacy.—At the June commencement only one student was graduated in pharmacy. Because of acceleration the regular June class was graduated in March. Prizes for excellence in scholarship have been awarded to William Fong, Alene Luedke, Shirley Mabray, Clark Kelly and Robert F. McKinnon.—Appearing in recent issues of the *Rocky Mountain Druggist* are two articles by Dr. David O'Day on "The Safeguard of Every Pharmacist—a Knowledge of Pharmaceutical Law" and "Plasma's Important Role in the Treatment of Shock Victims." Also, Dr. J. B. Sprowls had one on "The Significance of the Sulfonamide Drugs in Chemotherapy."—Harry L. Starling, instructor in materia medica, has resigned to accept a position as pharmacist in the Paradise Valley Sanitarium at Paradise Valley, California.—Dr. J. B. Sprowls has been elected treasurer of the Colorado Chapter of Sigma Xi.—John Biles, a senior pharmacy student, has been appointed an assistant in the department of chemistry, assisting in teaching organic chemistry and chemical microscopy.—Over one hundred students, during the year, have taken the courses in pharmacy given the Boulder faculty for students in the College of Nursing on the campuses in Boulder and Denver.

University of Connecticut, College of Pharmacy.—Sixteen students who completed their work last September and seventeen who finished in May were graduated at the sixty-first annual commencement of the University. The baccalaureate sermon was by Rev. J. Garland Waggoner, university chaplain, and the commencement address by President A. N. Jorgensen, who spoke on "Forming a Beachhead for Peace." Prizes for superior scholarship were won by Lola J. Levy, Ralph Berger, Amerco Giuliano, Solomon Ballier and Jeanette Ehlert.

Duquesne University, School of Pharmacy.—At the June commencement prizes for excellence of scholarship were awarded to Charles A. De Fazio and Sister M. Lutwina Baltes, C. M. P.

University of Florida, School of Pharmacy.—Prizes for excellence in scholarship during the year have been awarded to Faye Whitmore, Jack Baumstein, James E. Hughes and Paul Rosenberg.—Jack K. Dale was granted the Master's degree at the May commencement. The title of his thesis was "The Hydrolysis of Zinc Salts."—Jack K. Dale, Paul Rosenberg and Faye Whitmore were elected to membership in Phi Kappa Phi.—Kappa Epsilon initiated Florence Lee on May 9, and Mrs. L. D. Edwards and Mrs. C. H. Johnson became associate members.—The Bureau of Professional Relations prescribed an exhibit at the annual post graduate course for physicians held at Jacksonville during the week of June 19. The exhibit consisted of three displays: one on Florida Formulary preparations, one on hormone and one on penicillin. A feature of the latter display was three growing cultures of the mold, *Penicillium notatum*. One hundred seventy-five physicians were in attendance.—The Florida Board of Pharmacy has appropriated funds for continuing the Bureau of Professional Relations for the year 1944-45 and Director Foote has conferred with the Interrelationship Committee of the Florida Medical Association in planning the year's program.

Fordham University, College of Pharmacy.—William Diamantio who recently was graduated, cum laude, and also winner of the Diner and Merck awards, has been appointed to an instructorship in pharmaceutical chemistry.

George Washington University, School of Pharmacy.—Donald Jones is the first student from this school to receive one of the American Foundation for Pharmaceutical Education fellowships.—George Stanley Thomen received the prize for the senior having the highest average in pharmacy.—Dean W. Paul Briggs, now on war leave, has been promoted to the rank of Lieutenant Commander U.S.N.R.—Lieutenant (j.g.) Charles W. Bliven, U.S.N.R., is now stationed at the Naval Medical Center in Bethesda, Maryland.—Dr. Lea Gene Gramling, also on war leave, is now in England.

University of Idaho, College of Pharmacy.—The first semester of the 1944-45 school year began July 8 with a registration of 38. In addition a number of Navy V-12 and returned service men are taking various courses.—Fermin Lecumberry of the class of 1943 has the unique record as a pharmacist with the transport command of being in England 28 days after graduation. His service has taken him to many Atlantic and Pacific ports.—Five students were graduated at the June commencement. This brought the total for the year 1943-1944 to 42. Most of them are now in the armed forces.—Professor Herman Forslund discussed socialized medicine recently before the Pocatello Lions Club.

The State University of Iowa, College of Pharmacy.—The American Foundation for Pharmaceutical Education scholarships were awarded to Helen H. Turnbull and Avonelle Rasheim.—The Ford Hopkins scholarship of one year's tuition will be awarded at the end of the current summer session. A minimal grade point average of 2.75 is required to be eligible for these scholarships. The following students were awarded prizes for excellence in scholarship—Helen H. Turnbull, Orlando

F. Potthoff, Susan A. Showers, John C. Purcell and James R. Swank.—Elder Haines and LeRoy J. Hagen have been elected to Rho Chi.—Frederick W. Landon, '43, has been appointed a full time assistant.—Several half-time scholarships will be available for the year 1944-45.

University of Kansas, School of Pharmacy.—The following students presented papers at Colloquy: Dewey Nemec, on "Blood Plasma"; Mavis Luckert, on "Malaria, Cure and Prevention"; Betty J. Whitney, on "Paracelsus"; Lucile Baker, on "The Manufacture of Soap."—Dewey Nemec has been elected to represent District III, which besides the school of pharmacy includes the schools of business, fine arts, education and the graduate school.—The Kappa Epsilon national scholarship award for 1942-43 has been won by the local Mu chapter for the highest chapter rating. The basis of the award was an examination conducted under the auspices of the national officers. The chapter also won third place in the scholarship average for regular class work. Individual ratings in scholarship were given as follows: Francis Blair, senior, Betty J. Whitney, sophomore and Lucile Boher, junior took second, sixth and eighth place respectively. Installation and initiation of new members took place on May 15.

University of Maryland, School of Pharmacy.—Twenty-four persons were graduated with the Bachelor's degree at the April commencement. Tracy G. Call and John A. Scigliano received the Master's degree and Harry K. Iwamoto, the Doctor's, from the graduate school in June. The major work for these degrees was done in pharmacy. Medals and prizes for excellence in scholarship were awarded to Charles I. Smith, Anthony G. Padussis and George Lichter. Certificates of honor were presented to Jerome Gaber, Morris Jaslow and William Weiner.—Dr. Walter H. Hartung spoke before the Science Club of the University of Georgia in March on "Influence of Chemical Structure on Physiological Activity."—Recently Dean A. G. DuMez gave a radio address over WFBR on "The Pharmacist's Role in the Promotion of Social Hygiene."

Massachusetts College of Pharmacy.—Dr. Joseph Skinner, assistant in language, has resigned to enter the foreign service of the United States.—Prof. Leslie M. Ohmart has been advanced from the rank of assistant to that of associate professor in pharmacy and Carroll B. Gustafson, from lecturer on chemistry and mathematics to assistant professor in the same fields.—In these days of decreased student enrollment it is interesting to note that of the total expenditure of \$114,006.31 for the year, student fees yielded \$33,442.38. The remainder was from endowment income.—The annual refresher course for pharmacists established several years ago was held on June 28-29. In spite of personnel shortages in war time, restrictions on travel, the attendance exceeded that of a year ago.

University of Michigan, College of Pharmacy.—Charles H. Stocking has been promoted to a full professorship rank.—Dr. Lee Worrell is teaching chemistry in the College of Literature, Science and the Arts for the summer term.—Dr. E. L. Cataline spoke recently before the Junior Research Club, The Michigan Branch of the American Pharmaceutical Association and the Dermatology Clinic of the University Hospital

on the subject, "Emulsified Ointments."—James E. Gearin, a graduate student has left school prior to his induction into the armed forces.—The Lehn and Fink Medal was awarded to Frederick M. McKinney.—The American Foundation for Pharmaceutical Education Scholarships have been awarded to Walter Anhut, Patti Cain, Hazel Giberson and Thaddeus Grosicki.

University of Minnesota, College of Pharmacy.—Studies in the junior and senior years only are being offered during the summer quarter. The pre-war schedule will be resumed beginning with the fall quarter.—Winners of scholarships and prizes for research and excellence in scholarship were Alfred Breneman, Hermina Gaul, Roy Cumminlin, Robert Doerge, Louis Culbrondoon, Hazel E. Landeen and Laverne Small.—Dr. Ole Gisvold represents pharmacy on an over-all university committee to coordinate research.—Dr. Don Buelow and Edwin Carloon have been elected to Sigma Xi.—Two Samuel W. Melendy and two Lederle graduate fellowships are available beginning the fall quarter.—Dr. Charles V. Netz was re-elected secretary of the Minnesota State Pharmaceutical Association and Dean Rogers was made a member of the executive committee.—Walter C. Fredell of Drake University is engaged in graduate work in Minnesota this summer.—The third senior class to graduate under the accelerated plan of study will receive degrees at the August commencement.—Frank De Gangi and William Benica, former graduate students, are now in the armed forces.

University of Montana, School of Pharmacy.—Dr. E. O. Melby resigned the position as chancellor of the Greater University in April to be reappointed as president of Montana State University at Missoula.—Dr. John F. Suchy has resumed his university duties after a long illness from bronchial pneumonia.—Dr. Jerome C. Kopet, after two years of splendid service has resigned in order to take over the extensive interests of his father which include a prosperous pharmacy in the residential area of Spokane.—Two pharmacy students, Kathleen Hubbard and Dana Le Valley have been tapped by Mortar Board.

University of Nebraska, College of Pharmacy.—Dr. Ralph L. Ireland was granted the master's degree at the July commencement. The subject of his thesis was "The Use of Tannic Acid in Treating Deep Carious Areas in the Primary Teeth." Kazuo K. Kimura received the master's degree at the January commencement. The subject of his thesis was "Studies on the Influence of Sex and Age upon Resistance to Ouabain in the Albino Rat."—The Lehn and Fink Medal was awarded to Eugene T. Kimura.

University of North Carolina, School of Pharmacy.—Prizes for excellence in scholarship have been awarded to C. Anthony Johnston and Aubrey D. Williams.—New officers of the student branch of the North Carolina Pharmaceutical Association are Charles Beddingfield, Jr., president; Thomassine Slayton, vice-president; and Lucy L. Kennedy, secretary-treasurer.—William W. Taylor is the new president of the Rho Chi Society. Rudolph W. Hardy is vice-president and Laurel Williams is secretary-treasurer.

University of Oklahoma, School of Pharmacy.—Dr. Ralph Bienfang has recently been elected a fellow of the American College of Apothecaries.—Sue Jones was presented a cash prize by the Oklahoma Ladies Auxiliary as the most outstanding woman graduate.—With a view to closer relations between British and American pharmacy the editor of the *Chemist and Druggist* of Bath, Somerset, England, has invited Dr. Bienfang to submit an occasional article for possible publication.—Recent initiates in Lambda Kappa Sigma are Mrs. Eddy Walker, Louise Pope, Beth Newport, Belle Standifer, Jo Ann Kirkpatrick and Bobby Merriott.

Oregon State College, School of Pharmacy.—Dr. Lewis C. Britt has resigned from the faculty in order to operate a drug store at Independence, Oregon. Prof. Frank R. Henry replaces him on the pharmacy staff.—Prof. E. T. Stuhr has been named a member of the Oregon Farm Chemurgy Committee.—The sixth annual Biology Colloquium was held on the campus in April. The general theme was "Genetics and the Integration of the Biological Sciences."—New members of Rho Chi are Muriel C. Vincent, Betty Cayo and Kate L. Gannon.—Awards for excellence in scholarship have been made to Clyde C. Saylor, Jr., Muriel C. Vincent, Sarah F. Kuntz, Orpha G. Lee, Jennie M. Smith, W. G. Gerschberger and Kate L. Gannon.

Philadelphia College of Pharmacy and Science.—Assistant Dean L. F. Tice, 1929, has been elected president of the alumni association.—On alumni day, semi-centennial certificates were awarded to the twenty-one members of the class of 1894 who were in attendance.—The one hundred twenty-third commencement took place on June 28. The commencement address was given by United States Senator from Pennsylvania, James J. Davis. His subject was "Opportunities in the World of Tomorrow." Students graduating with distinction included John A. Cherepow, J. Leon Lichtin, Robert K. Pfeil, Russell L. Steadman and Regina Steinbrecker. Those receiving awards, prizes or medals for superior scholarship were Robert K. Pfeil, Russell L. Steadman, John A. Cherepow, Regina Steinbrecker, Ruth L. Newman, Samuel T. Melvin, Jr., and Melissa D. Browning. Patrick Henry Costello was among those granted honorary degrees.

Pittsburgh College of Pharmacy, University of Pittsburgh.—Dr. Edward P. Claus was elected first vice-president of the Pennsylvania Academy of Science at the spring meeting. Dr. Claus presented a paper entitled "The Taxonomy of the Liliaceae as Based on Phytoconstituents."—At the May commencement, thirty students were graduated. Those mentioned because of exceptional scholarship were Autumn E. Colby, Clara P. Koenzig and Sylvan M. Sax. Mr. Sax also won all prizes, departmental and general, for the highest scholastic average.

Purdue University, School of Pharmacy.—Lt. Wayne Steele, a former graduate assistant in pharmacy, was killed in combat duty over England on April 21.—Dean Glenn L. Jenkins discussed the "Long Range Program of Policy of Pharmaceutical Organizations" and Dr. C. O. Lee presented a paper on "The Fifth Year in Pharmacy" at the meeting of District No. 4 at Madison in May.—Don E. Franche has resigned as graduate assistant in pharmacy to accept a position as chief pharma-

cist in the University Hospital at Ann Arbor, taking the place of H. A. K. Whitney, who has resigned.—Dr. H. G. DeKay attended the meeting of the Tri-State Hospital Assembly in Chicago in May.—Gloria Niemeyer, Louis Siler and Betty Hancock are internes in the University Hospital at Ann Arbor.—Jack Moore represented the student branch of the A. Ph. A. at the recent meeting in Madison, Wisconsin, and was elected secretary-treasurer of the fourth district.—Dr. DeKay recently spoke on the subject "Dope, or the Use and Abuse of Opium" before the Nurses Trainees and Alumni Association of the Home Hospital.—Prof. C. J. Zufall gave the commencement address at the St. Elizabeth Hospital School of Nursing in May. He has been giving the instruction in pharmacology and therapeutics in this school for several years.

Medical College of the State of South Carolina, School of Pharmacy.—On June 5, Dr. William A. Prout, who has been acting director since the death of Dr. G. W. Ziegler, was elected director of the school by the Board of Trustees.—The deacceleration of the pharmacy program will take place with the beginning of the fall session on October 2.—Dr. Amos B. Colby has resigned from his position in dispensing pharmacy to enter the armed forces. His place will be filled by Prof. Ralph M. Wilson, formerly of the faculty of the Southwestern Institute of Technology of Weatherford, Oklahoma.—Dr. Robert M. Featherstone of the department of chemistry has resigned to return to the State University of Iowa.—Mr. Robert C. Stoker has been raised to the rank of assistant professor in the department of botany and pharmacognosy.—Major T. C. Tibbetts, associate professor of economics at the Citadel, has replaced Prof. John Mettler, who resigned as part-time instructor in economics.—Dr. Prout presented a paper on "What Can be Done to Aid the Pharmacists in Keeping Posted on the Progress of Pharmacy and New Preparations."

Temple University, School of Pharmacy.—Mr. Frank F. Law, Jr., 1917, a trustee of the University and president of John Wyeth and Brother, Inc., and a former president of the general alumni association, was presented with the Distinguished Service Award at the annual spring commencement.—Fifty-two students were graduated in pharmacy on June 30. The commencement address for the professional schools was delivered by Dr. Joseph McFarland, professor of general pathology in the School of Dentistry. Dr. Robert L. Swain was among the recipients of the honorary degree, Doctor of Laws.

Medical College of Virginia, School of Pharmacy.—The total enrollment for the session beginning July 6 was 69. Twenty-two of them were freshmen, of whom 17 were girls, bringing the total enrollment of women to 34. The average high school scholastic record of the entering class is the highest in the history of the institution.—The pharmacy staff is, this summer, giving special courses to 54 pre-medic and pre-dental students who will enter either the medical or the dental school this September.—Dean W. F. Rudd was an invited guest to and attended the Southern States Work Conference at Daytona Beach in May.—Dr. T. D. Rowe has been appointed assistant dean and Dr. Karl L. Kaufman has been advanced in rank to associate professor.

Western Reserve University, School of Pharmacy.—Dr. F. J. Bacon, who has been functioning as acting dean during the past year was recently appointed dean.—Lieutenant Donald R. Cook is now stationed at Westover Field, Massachusetts, where he is instructing bomber crews on the proper and most efficient use of high altitude oxygen equipment.—The student enrollment is being maintained to some degree through the providing of scholarships. Twenty-seven students attended the winter session. There was an increase of eleven at the beginning of the summer session.—Henrietta M. Lorn, a sophomore, has been awarded the Nellie Florence Lee scholarship by the Women's Organization of the National Association of Retail Druggists.—The accelerated program allows insufficient time for the publication of the "Pharmacon," but the students continue to show interest in editing and publishing the "Pharmacon News" on a quarterly basis for the benefit of the alumni and former students now in various branches of the armed forces.—The school of pharmacy extends a welcome to all who will attend the pharmaceutical meetings to be held in Cleveland in September.

State College of Washington, School of Pharmacy.—Twelve seniors were graduated in May.—Dr. Coy W. Walker has resigned to accept a research position with the Lederle Laboratories, Inc., in Pearl River, New York.—Dr. A. I. White, because of illness, could not meet an engagement to address the druggists of British Columbia on June 12, at Vancouver. Dean P. H. Dirstine substituted for him.

The announcement of the resignation of Dr. Robert P. Fischelis, after many years of devoted service as secretary of the New Jersey board of pharmacy and as chief chemist of the state, in order that he may devote his entire time to government work, as Chief of the Civilian Medical and Health Supplies Branch of the War Production Board comes with somewhat of a shock. Dr. Fischelis had become a fixture in New Jersey. A lot of creative thinking and planning for the benefit of pharmaceutical education, legislation and practice has come out of his office and it is with keen regret on our part that the demands of war have called him into other fields.

After years of service as the first permanent secretary of the American Pharmaceutical Association, Dr. E. F. Kelly has announced his retirement to become effective in the near future. A special committee appointed to consider the question of a successor is composed of B. V. Christensen, chairman, H. A. B. Dunning, R. L. Swain, H. H. Schaefer and P. H. Costello.

Dr. Walter G. Campbell who has for many years been the able Commissioner of the Food and Drug Administration has resigned. Under his wise guidance the agency has become a powerful factor for the betterment of the wholesomeness of foods and the purity of drugs. There is satisfaction in knowing that Dr. Paul Dunbar has been named to succeed him for it means the work of the department will be continued on the high level Commissioner Campbell maintained.

Miscellaneous Items of Interest

Fordham Honors the Memory of Dr. Canis

The Fordham University College of Pharmacy Alumni Association conducted Memorial Services for the late Dr. Otto F. A. Canis at a special meeting held on June 23rd, 1944, at Keating Hall Building on the campus of the University.

The meeting was devoted to the commemoration of the Alumni Association's outstanding member, Dr. Otto F. A. Canis, whose untimely death was a personal loss to every graduate of the Fordham College of Pharmacy, his family and host of friends.

Many outstanding men in the education and pharmaceutical field took part and spoke glowingly in memory of Dr. Canis.

Professor Alfred White, President of the Alumni Association, presided and spoke. Other speakers were Dr. William C. Anderson, Leslie C. Jayne, Dr. Leonard J. Piccoli and the Honorable Reverend Robert I. Gannon, President of Fordham University.

Joseph J. Hammer '22, chairman of the Dr. Otto F. A. Canis Memorial Fund Committee, presented to the Alumni Association a beautiful bronze plaque and in doing so stated, "Nothing would speak more eloquently than the heartfelt sentiments expressed in the inscription on this plaque which reads:

In Memory of
Dr. Otto F. A. Canis
Professor of Pharmacy

In recognition of his sincere devotion to the ideals
of pharmacy and his active participation in the ad-
vancement of the student body and the Fordham Uni-
versity College of Pharmacy.

Erected as a tribute of Esteem and Respect
by the
Alumni Association

The model drug store at the college was likewise dedicated to the memory of Dr. Canis by naming it "The Dr. Otto F. A. Canis Model Pharmacy."

Professor D. H. Spencer Retires

After thirty-one years as a member of the faculty of the University of Kansas School of Pharmacy, Professor Daniel H. Spencer has retired. The School of Pharmacy, local pharmacists, several University staff members, and friends honored Professor Spencer at a testimonial dinner on June 20th. Dean J. Allen Reese sketched Professor Spencer's life and presented him with a lifetime fountain pen and a souvenir booklet of University of Kansas views, containing the signature of each guest present at the dinner, as a token of esteem.

Daniel Hooker Spencer was born in New Hartford, Connecticut, April 10, 1869, of parents of English ancestry. In 1887 Mr. Spencer entered the University of Kansas and received an A. B. degree in 1893. The same year he continued his education in the School of Medicine at the University of Pennsylvania, where he remained for three years when he returned to the University of Kansas and enrolled in the School of Pharmacy. The University awarded Mr. Spencer the Ph. C. degree in Pharmacy in 1897 and the Bachelor of Science in Medicine in 1900.

Professor Spencer taught in the School of Pharmacy for six years until 1903. With the rank of Assistant Professor in Pharmacy he resigned to enter the retail drug business in St. Joseph, Missouri, as a major stockholder of the St. Joseph Drug Co., Inc., consisting of three stores. This phase of Mr. Spencer's activities lasted until 1917 when he sold his interests in the Company. He spent two years as pharmacist, first in Boston and then in San Diego, California.

During the summer of 1919 Professor Spencer returned to the University of Kansas as Assistant Professor of Pharmacy where he has remained until his present retirement. In 1926 he was promoted to Associate Professor, and in 1937, to Professor.

Professor Spencer served as secretary of the pharmaceutical laboratory section of the Teachers' Conferences of the A. A. C. P. in 1925-1926, and as chairman of this same section in 1926-1927. For five years he was secretary of the Sons and Daughters of New England and for several years has been treasurer of the organization. He was president of the Alumni Association of the School of Pharmacy for several years. Mr. Spencer has always been an ardent church worker. He was superintendent of the Sunday School of the Plymouth Congregational Church in Lawrence, and deacon in the same church for several years. Mr. Spencer was at one time president of the Douglas County Council of Religious Education.

Professor Spencer married in 1904 Miss Ina Leona Stilson of Concordia, Kansas, who is also a pharmacist. Mrs. Spencer received the degree of Ph. C. in Pharmacy from the University of Kansas in 1903. The Spencers have two children, Edward Clyde and Mary Stilson, and two grandchildren. Professor Spencer has always been an enthusiastic gardener and spends much of his leisure time gardening.

Professor Spencer has rendered an invaluable service to Pharmacy and the University of Kansas. He has been a stalwart citizen and a cooperative, loyal, exacting teacher.

Roy A. Bowers

"The governmental forms and certain mechanics of democracy are merely incidental in the government's success. The idealism behind the democratic form of government is what determines it will be a success. Democracy is based on faith. Spiritual and mental considerations in life after all are the most important ones."—C. S. Boucher, Chancellor, University of Nebraska.

Be Informed About Your Conference Problems for the Next Annual Meeting*

In these war-time conventions all of us are prone to think of major and pressing problems as subject material for the program. However, we must not overlook some of the lesser problems and we should be planning to meet them or acting upon them if possible.

Time is the rarest jewel we have; we must use it wisely and carefully if we are to benefit most from its free access. Therefore, the facts surrounding the problems of the Teachers' Conferences is presented to you in order that you will be informed and be prepared to act quickly and wisely on the issues as they arise in your convention, thereby eliminating much discussion which will permit time to be available for other problems.

In order that you will know why there has been no action on the report of the committee which studied the problems of the conferences, these facts pertaining to it are presented for your information.

The Special Committee on Teachers' Conferences realized they had not prepared letter-perfect resolutions but did phrase them in such a way that they expressed the wishes of the members of the conferences. From our report I quote: "In presenting these resolutions more attention was devoted to the subject material than to the proper phraseology of a resolution because we expected that if they merited any action they could be properly revised." (Page 537, Volume 7, No. 4, Am. J. P. E.)

Perhaps you may recall that the report of this committee was longer than the usual reports of committees and President Newton was courteous enough to permit a full reading of the report even though he had a full program. Again, you may recall that the four resolutions in the report were given to the Committee on Resolutions for action.

The Committee on Resolutions, with Dr. Hiner as chairman, disposed of these resolutions as follows: "Inasmuch as the Committee on Constitution and By Laws has requested that it be discontinued, and this series of four resolutions involved matters of policy, reorganization, expenditure, funds, and constitutional changes, the Committee on Resolutions recommended that these resolutions be referred to the Executive Committee for study and final action." (Page 464, Volume 7, No. 4, Am. J. P. E.)

From the time when the Committee on Resolutions referred the resolutions of the Special Committee on Teachers' Conferences to the Executive Committee, several things have occurred to these resolutions. The first one took place when the chairman of the Executive Committee submitted the problem of the Teachers' Conferences, along with other matters, to the members of the Executive Committee for an expression of their respective opinions by mail. This occurred sometime between the convention and April, 1944. The members of the Executive Com-

*This is a joint supplementary report by the two committees on Teachers' Conferences. It will clarify any confusion or misunderstanding that may have arisen concerning their work. This report was signed by all members of both committees, whose personnel, in part, was duplicated.—Editor.

mittee no doubt all replied to the chairman and expressed their opinions about these resolutions.

The second thing occurred on February 3, 1944, when the chairman of the Executive Committee, in a letter to me, stated: "It is my understanding that you expressed the desire to work over some of the recommendations so as to put them in better form before submitting them to the Executive Committee for action. The Executive Committee is now preparing an agenda for guidance in activities for the near future and should like to include these resolutions. Will you, therefore, submit before March 1, 1944, a revised set of resolutions which you would like to present for consideration and action." I could not find a carbon copy or a reply to this letter and therefore presume I did not answer it. For this discourtesy I publicly apologize. However, I did have some comments on the letter why I did not comply with the request of Dr. Christensen, which were as follows:

"Our Special Committee on Teachers' Conferences submitted its report and asked to be discharged; therefore, since no new committee has been appointed, I can not comply with the request. Likewise, the members of this committee feel that they have discharged their obligation and do not wish to carry through after submitting recommendations which elicited no action from members of conferences who should have displayed some interest in them.

"Dr. Christensen's statement 'that he understood I wished to work over the recommendations to put them in better form' is true. This came about because a member of the Executive Committee, in discussing our report with me at the close of our convention said, 'If your committee wants to put anything over and get action on your resolutions, condense them and then present them to the Executive Committee.' I probably agreed to get the committee to do this. That night I consulted with Dr. Hazleton, a member of the committee, about the suggestion of working over our recommendations. We tried to locate other members of our committee but we were unsuccessful, and further, we did not like to devote the evening to such a program. After thinking the suggestion over, Dr. Hazleton and I became angry at the thought that some one should think that this committee was trying to put something over and that we were evidently greatly interested in having our recommendations adopted. The direct opposite of this idea was true; we gave an unbiased report, and to the best of our ability, and we hoped that if the report was worthwhile those more interested in the affairs of the conferences than ourselves would discuss the resolutions and get the desired action. Because no one displayed any interest in the recommendations we made, we decided that we were through with our assignment."

Probably these facts were uppermost in my mind when I received Dr. Christensen's letter and therefore I did not answer it or comply with his request. So, in all fairness to the members of our Executive Committee, I can say that they did want us to be more specific, they did ask for revised recommendations, and they were willing to act upon our revised recommendations and therefore did show that they were interested in the report and in the problems of the conferences.

Finally, on April 2, 1944, in New York, the Executive Committee held a meeting and the recommendations of the Special Committee on Teachers' Conferences were given consideration. It was the opinion of the Executive Committee that the recommendations should be simplified and clarified. The following resolution was then adopted:

"That a committee consisting of Dean McCloskey as chairman, with the chairmen of the respective teachers' conferences, be constituted a committee to restudy the recommendations from the Special Committee on Teachers' Conferences for the purpose of clarifying and simplifying the various proposals and report to the Executive Committee at the next annual meeting."

When this appointment came to me I was reluctant to accept it but decided to do so because the other members of the committee were familiar with the problems because they had served on the original committee and all of us knew the problems; also, by accepting I could ease the burden of work and worry off the shoulders of some other group and the issues involved could be clearly and rather easily presented at the next convention.

The appointment of this committee caused some confusion because on October 12, 1943, President Goodrich appointed a committee known as the Committee on Teachers' Conferences as follows: John F. McCloskey, Chairman; Dr. L. W. Hazleton and Dr. E. J. Ireland as members. This committee, with two of its members on the other committee, could do little more about the Teachers' Conferences because of the pending action on the report submitted by the Special Committee which studied and reported on the problems of the conferences. Since I was chairman of both of these committees, I asked the members of both committees if they desired that we merge the work of the two committees and thereby expedite matters. The approval came quickly and this report will represent the work of this joint committee.

The foregoing statements present the remainder of the story pertaining to the various conferences and their problems.

Since a new committee has been appointed by the Executive Committee to work out proper recommendations which may solve some of the problems of the conferences, and since the Executive Committee demands that the report of this committee be submitted to them and not to the convention at large, the members of the various conferences must find some method to voice their opinion for any plans, regulations or methods which they wish to operate under in the future. This opportunity will be given to them at the next convention in Cleveland, when each of the respective conferences hold their annual meetings. If consideration of the problems or wishes of the conferences is not part of the program for each conference, then any interested member should open a discussion on the report as submitted on pages 530-39, Volume 7, No. 4, American Journal of Pharmaceutical Education.

John F. McCloskey, Chairman
Joint Committee on Teachers'
Conferences

Scientific and Educational Papers Published by the Faculties of the Colleges of Pharmacy During the Calendar Year 1943*

University of Florida, School of Pharmacy

Foote, P. A. and Gelpi, Roberto Z.

Florida Volatile Oils. IV. Sweet Orange. *Journal of the American Pharmaceutical Association, Scientific Edition*, 32, 145 (1943).

Hocking, G. M. and Edwards, L. D.

The Utility of Determination of Numbers and Dimensions of Glandular Scales in *Mentha* Species. I. *Journal of the American Pharmaceutical Association, Scientific Edition*, 32, 225 (1943).

Matthews, A. W. and Foote, P. A.

Florida Volatile Oils, V. *Illicium floridanum* Ellis. *Journal of the American Pharmaceutical Association, Scientific Edition*, 32, 148 (1943).

Nunez, Emilia Hoyo de and Johnson, C. H.

A Preliminary Study of *Piper marginatum* Jacq. *Journal of the American Pharmaceutical Association, Scientific Edition*, 32, 234 (1943).

State University of Iowa

Kuever, R. A.

Dihydroxypropyl Bismuthate: Experimental Studies of a New Bismuth Compound. *Journal of Pharmacology and Experimental Therapeutics*, 7, 265 (1943).

Honorary Societies. *American Journal of Pharmaceutical Education*, 1, 47 (1943).

Hospital Pharmacy Problem. *Hospital Management*, 8, 60 (1943).

Our Experience with Intensified Courses of Study. *American Journal of Pharmaceutical Education*, 1, 72 (1943).

Zopf, Louis C.

A Highly Compatible Washable Ointment Base. *Journal of the American Pharmaceutical Association, Practical Edition*, 4, 251 (1943).

University of Kansas, School of Pharmacy

Boughton, Lloyd L., and Stoland, O. O.

The Effect on Estrus of Drugs Administered Daily in Therapeutic Doses throughout the Life Cycle of Albino Rats and the

* This is far from a complete list. It is published for but one purpose, namely, as an example of what is desired for this section in the coming years. No attempt has been made to include radio and public addresses before schools, associations or clubs although this type of dignified publicity is to be commended and encouraged but the list is so very large, publication is impracticable. Sufficient to say that in 1943 there was scarcely a school of pharmacy that did not contribute to this type of effort but the first prize goes to the Philadelphia College of Pharmacy and Science.—Editor.

Estrus Cycle Sequence with Reference to Age. *Journal of the American Pharmaceutical Association, Scientific Edition*, 32, 187 (1943).

University of Maryland, School of Pharmacy

Bolth, F. A., Whaley, W. M., and Starkey, E. B.

Diazonium Borofluorides. IV. Preparation of Arylcopper Compounds. *Journal of the American Chemical Society*, 65, (1943).

Estabrook, G. B.

The Effect of High Electrostatic Fields on the Vaporization of Molybdenum. *Physical Review*, 63, (1943).

Gakenheimer, Walter Christian

The Synthesis of Aliphatic Aminoalcohols of Pharmacologic Interest, Thesis (Ph. D.) 1943. Published *Journal of Organic Chemistry*, Jan. 1944.

Grubb, T. C.

Modernizing Laboratory Teaching of Bacteriology and Immunology. *Merck Report*, 52, 21 (1943).

Hager, George P. and Starkey, E. B.

Fluorine Substituted Aromatic Acids. *Journal of the American Pharmaceutical Association*, 32, 44 (1943).

Hartung, Walter H. and Jenkins, Glenn L.

Second Edition of "The Chemistry of Organic Medicinal Products." New York, Wiley, 1943.

Jarowski, Charles and Hartung, Walter H.

Amino Alcohols. XII. Optical Isomers in the Ephedrine Series of Compounds. *Journal of Organic Chemistry*, 8 (1943).

Purdum, W. Arthur

A Comparison of Two Methods of Evaluating the Relative Efficacy of Disguising Agents for Distasteful Drugs. *Journal of the American Pharmaceutical Association*, 32, 103 (1943).

Slama, Frank J.

"Manual for the Macroscopical Identification of Official and Non-official Drugs." Baltimore 1943.

Massachusetts College of Pharmacy

Aldrich, Robert H.

Forensic Aspects of Burns, *Annals of Surgery*, 117, 4 (1943).

The Modern Treatment of Burns. *Journal of Chemical Education*, 20, 11 (1943).

The Treatment of Major and Minor Burns. Boston Number, *Medical Clinics of North America*, Sept. 1943.

Forensic Aspects of Burns with Special Reference to Appraisal of Terminal Disability. *Virginia Law Review*, April, 1943

Pruritus Ani and Absenteeism. *Industrial Medicine*, 12, 654 (1943).

Archambault, George F.

Food Drug Act and the Retail Pharmacist. *Journal of the American Pharmaceutical Association, Practical Edition*, 11/43, 348-350.

- Archambault, G. F. and Bierman, C. H.
Hospital Pharmacy from an Administrative Point of View.
Hospital Management, March, 1944.
- Bauer, C. W. and Marshall, A. L., Jr.
The Fate of Salol in the Duodenum. *Journal of the American Pharmaceutical Association*, 4/43, 104-106.
- Kelley, Ray S.
Qualitative Chemistry and Qualitative Pharmaceutical Chemistry. *American Journal of Pharmaceutical Education*, 1/44, 81-86.
- Lynn, E. V. and Costello, C. H.
An Investigation of *Viburnum opulus*. *Journal of the American Pharmaceutical Association*, Scientific Edition 1/43, 20-22.
- Ohmart, L. M., Stoklosa, M. J. and Glover, W. H.
Refrigeration Gives Better Syrup of Orange. *Journal of the American Pharmaceutical Association*, Practical Edition, 10/43, 309-310.
- Youngken, H. W.
The Effect of the War upon Our Supply of Certain Economic Biological Products. *The American Biology Teacher*, February, 1943.
The Needs and Opportunities for Trained Pharmacognosists. *American Journal of Pharmaceutical Education*, 1/44, 87-92.
- Youngken, H. W. and Lacombe, N. R.
Studies on the Anatomy of *Rhamnus lanceolata* Pursh and *Rhamnus Frangula* L. *Journal of the American Pharmaceutical Association*, Scientific Edition, 8/43, 193-202.

University of Michigan, College of Pharmacy

- Blicke, F. F. and Grier, Nathaniel
Antispasmodics. V. Basic-Alkyl Esters of p-Xenylactic Acid and Substituted p-Xenylactic Acid. *Journal of the American Chemical Society*, 65, 1725 (1943).
- Blicke, F. F. and Kaplan, H. M.
Synthetic Mydriatics. III. *Journal of the American Chemical Society*, 65, 1967 (1943).
- Blicke, F. F. and Lilienfeld, W. M.
Basic-Alkyl Esters of p-(Aminoalkyl)-benzoic Acids. I. *Journal of the American Chemical Society*, 65, 2281 (1943).
- Blicke, F. F. and Lilienfeld, W. M.
Basic-Alkyl Esters of p-(Aminoalkyl)-benzoic Acids. II. *Journal of the American Chemical Society*, 65, 2377 (1943).
- Blicke, F. F., Faust, J. A., Gearien, J. E., and Warzynski, R. J.
2-Chloroacetylpyrrole. *Journal of the American Chemical Society*, 65, 2465 (1943).

University of Nebraska, College of Pharmacy

Holck, Harald G. O. and Weeks, James R.

The Biological Assay of a New Extract of *Convallaria majalis* Leaves Using Pigeons. *Journal of the American Pharmaceutical Association*, 32, 53 (1943).

The Potency of a New Extract of *Convallaria majalis* Leaves. III. Assays by the Papillary Muscle Procedure and the U.S.P. XII Cat Method. *Journal of Pharmacology and Experimental Therapeutics*, 78, 180 (1943).

Holck, Harald G. O., Weeks, James R., Duis, Beatrice I., and Leach, Carl D.

The Potency of a New Extract of *Convallaria majalis* Leaves. IV. Studies on the Absorption of *Convallaria* and of *Digitalis*. *Pharmaceutical Archives*, 14, 21 (1943).

Holck, Harald G. O., Weeks, James R., Mathieson, Donald R. and Duis, Beatrice I.

Effects of Age and Sex upon the Margin of Safety of "Delvinal Sodium Vinbarbital and of Calcium 5-Ethyl 5-(2-Butyl) N-Methyl Barbituric Acid in the Albino Rat. *Journal of the American Pharmaceutical Association*, 32, 180 (1943).

Pace, Donald M. and Kimura, Kazuo K.

Laboratory Manual for Vertebrate Physiology. 101 pages, 1943, University of Nebraska Press.

Schwartz, Arthur E. and Hiner, L. David

A Histological Study of *Chimaphila umbellata*. *Journal of the American Pharmaceutical Association, Scientific Edition*, 32, No. 7 (1943).

Minutes Special Joint Meeting of Executive Committee of American Association of Colleges of Pharmacy and Executive Committee of the American Foundation for Pharmaceutical Education*

April 3, 1944—Held at

330 West 42nd Street, New York

The Executive Committee of the American Association of Colleges of Pharmacy on invitation from officers of the American Foundation for Pharmaceutical Education, met jointly with the Executive Committee of

* While the results of the joint meeting were commented upon in the April issue of this journal, we believe the printing of these minutes by Dr. Newcomb, secretary of the Foundation, will be of great interest to all. These minutes have become available only recently.—Editor.

the latter organization on Monday, April 3, 1944, at Foundation headquarters, 330 West 42nd Street, New York City.

Prior to the joint meeting of the two committees, members of each group were requested to submit items for the docket to be considered at the meeting. A copy of this docket is attached to these minutes (Printed in April issue).

The following were in attendance:

Representing the Executive Committee of the A. A. C. P.:

B. V. Christensen, Chairman
F. J. Goodrich, President
G. L. Jenkins, President Elect
H. M. Burlage
A. G. DuMez
E. R. Serles
R. A. Lyman
H. C. Newton
C. T. Eidsmoe
C. H. Ballard

Representing Executive Committee of the A. F. P. E.:

George V. Doerr
C. S. Beardsley
S. B. Penick
Ernest Little
R. L. Swain
E. L. Newcomb
E. F. Kelly
J. J. Dreyer
E. Bellis (holding proxy for H. P. Beirne)

Also in attendance were:

H. E. Kendig
E. Walton Bobst
L. M. Kantner

The meeting was called to order by President George V. Doerr of the Foundation at 10 A. M. Mr. Doerr spoke briefly on some of the important problems facing pharmaceutical education and the practice of pharmacy. He expressed the view that through close cooperation between the Foundation and the A. A. C. P. these problems could be worked out. He emphasized the importance of applying the principles of scientific research to these problems and, at the very outset, made it clear that he was deeply interested in giving his full support to the improvement of pharmaceutical education.

President Doerr suggested that Dr. R. L. Swain be asked to serve as Chairman of the joint meeting. All in attendance concurred with this suggestion and Dr. Swain took the chair.

The joint group then entered into a discussion of the various subjects set forth in the agenda. Because of the over-lapping of many of the items the order of discussion was not altogether in accord with the listing of the items.

On opening the discussion, Dr. Swain expressed his pleasure that the joint meeting of the two groups had been brought about and said he was convinced that betterment of pharmaceutical practice and pharmaceutical education would result from the conference.

Dr. Swain called upon Secretary Newcomb of the Foundation to explain to the members of the Executive Committee of the A. A. C. P. the manner in which the Foundation was functioning as called for by item number 1 on the docket. Secretary Newcomb reviewed the purposes and limitations governing Pharmacy Foundation Scholarship funds awarded by the Board of Grants to colleges of pharmacy. He emphasized that scholastic ability and financial need had been stipulated by the Board of Grants as requirements for these scholarships.

He reported that all but four of the colleges of pharmacy had applied for and received the first Foundation undergraduate scholarship funds. In most instances, the schools had already awarded the scholarships and filed the information called for by the Foundation. He expressed the view that the Board of Grants would request the Foundation for an allocation of funds to be made available to the Board of Grants for fellowships and the promotion of research work in the near future.

Dr. Newcomb stated that the Foundation had before it requests from some 17 colleges of pharmacy for specific financial aid to supplement college budgets for maintenance and operation during the present critical war emergency. He pointed out that these colleges of pharmacy were all accredited institutions and that some of them were faced with the certainty of being forced to close up unless they secured financial aid from outside sources. Some of these schools, he said, already had secured substantial funds through solicitation on their own part and that others were endeavoring to raise money.

Secretary Newcomb said that 41 colleges of pharmacy had specifically reported that they would not need financial aid for the current year in order to remain open. Some six schools had not replied to the inquiry, thus indicating no financial crisis.

Dr. Newcomb said that he felt the officers and members of the Board of Grants of the Foundation would be glad to have the views of members of the Executive Committee of the A. A. C. P. with respect to the Foundation giving financial help to accredited colleges of pharmacy which might be forced to close during the present war emergency if such aid was not contributed. He pointed out that while the Foundation was giving equal assistance to each of the schools of pharmacy in the form of scholarship funds, that the war emergency aid requested, if given, would result in an unequal distribution of Foundation funds to the schools of pharmacy. He emphasized the fact that the Board of Grants had already expressed the conviction that in every case of requests coming to the Foundation, the individual merits of the school must be considered. He asked the college executive committeemen to express their views as to whether they felt the Foundation should give this requested financial

aid in order to keep some of the accredited colleges of pharmacy open. All members of the Executive Committee of the A. A. C. P. entered into the discussion which followed.

Many other factors surrounding the present operation of our colleges of pharmacy were cited. Considering all of the factors involved it was the consensus of opinion of all in attendance at the meeting that the Foundation should, during the war emergency, give assistance to worthy colleges of pharmacy where necessary to keep them open and running.

The group next entered into a lengthy discussion on the question as to how the educational process in the colleges could be improved in relation to the needs and welfare of the profession and pharmaceutical service to the public. The selection of young high school graduates of ability and character and the recruiting of such students through co-operation between college faculty members and pharmacists, and the supply of literature on pharmacy as a career, was all approved. In this connection the work of the National Pharmacy Scholarship Committee in the preparation of the booklet "Pharmacy as a Career," of which some 75,000 have already been distributed, was most favorably referred to. The Foundation film on Pharmacy as a Career, being prepared by the Becton Dickinson Foundation for the Extension of Scientific Knowledge was also mentioned. It was reported that this film was to be ready for use in high schools and other public meetings some time this fall.

The need for improving the facilities of many of our colleges of pharmacy for the giving of practical instruction was discussed. It was felt that this subject was one which the Foundation might very properly give assistance to where necessary. In a similar way it was recognized that there was need for selection and improvement of faculty personnel and in the improvement of compensation for many faculty members.

It was pointed out that the great diversification in the fields of pharmaceutical practice called for an extension of a greater variety of optional courses with full credit for each being allowed to the student. Modifications in curricula offerings have already been made by many schools in this direction and others are contemplating such changes. The question of the length of the pharmacy course was discussed as well as the content of the course. It was brought out that many who are engaged in one phase or another of the drug industry do not now realize the present 4 year course includes a great deal of general academic training and that it is not made up entirely of professional subjects. The meeting recognized the fact that there is, among retailers, manufacturers and other segments of the drug industry, some feeling that the college of pharmacy curriculum should be studied for the purpose of ascertaining whether it is generally suited for preparing pharmacists for meeting pharmaceutical conditions. It was stated that the view had been expressed in some circles that the pharmacy curriculum may include more or less material of a sentimental or historical interest and that if this were eliminated, more time might be found for a greater inclusion of the biological sciences and other scientific courses which might enable pharmacists to cooperate much more closely with the medical profession.

It was pointed out too that there were some demands for courses in drug store management. The theory being that the pharmacist must be able to operate on a sound business basis even though he conducts a strictly professional pharmacy.

Dr. Christensen stated that the general subject of curricula revision was being given consideration by the college group and he emphasized that as per resolution adopted at the annual meeting in September, 1943, the Executive Committee of the A. A. C. P. is working on a plan for such a study and when the plan is developed it will be necessary for the A. A. C. P. to seek financial aid to carry out such a survey. In connection with this whole discussion, it was made clear that the Foundation itself would institute no such survey but would give favorable consideration to defray its cost should the college group ask that such a survey be undertaken.

Reference was made to the demand in some quarters for the early requirement of pre-professional education on the college level—a pre-pharmacy college education of one or more years.

The joint meeting next entered into a general discussion on how industry and the profession might best work together to further the educational process and what the requirements would be of pharmacists who are to serve in the post-war period. It was brought out that there should be a close contact between the actual practice of pharmacy in all of its phases and the colleges of pharmacy in order that the colleges could, from time to time, implement the educational process to meet the needs of the times.

Chairman Christensen called upon Dean Jenkins to report upon work being done by the A. A. C. P. Committee on requirements for scholarship recipients. Dean Jenkins gave a full outline of the standards proposed and expressed the view that the work would be completed in time to be submitted at the 1944 annual meeting of the College Association. The standards proposed by the Committee place emphasis upon scholastic ability. It was felt that this would help to secure a better qualified group of students. The colleges of pharmacy are definitely interested in ways and means of attracting a better qualified group of pharmacy students and it is likely that such efforts on the part of the colleges will be closely coordinated with the work of the National Pharmacy Committee on Public Information.

E. Walton Bobst, Chairman of this Committee, was present by invitation and outlined comprehensively the program which his committee hopes to put into full operation. Once the public relations office of the committee is completely organized, it will function upon three levels, according to Chairman Bobst—namely, National, State and local. Means will be afforded for the collection of constructive, factual information bearing upon pharmacy and pharmaceutical practices and this will be made available to the country in a readable, human interest fashion. Chairman Bobst made it clear that he would welcome the advice and close cooperation of pharmaceutical educators. The objectives of his committee, he said, must be in harmony with the wishes of pharmaceutical educators in this respect. He said there was no intention whatever

to bring into pharmacy an unnecessarily large number of students, but that the standards of pharmacy might be raised if there were sufficient pharmacy students so as to permit the individual colleges to build up their classes upon a dependable and selective basis.

The group spent some time discussing the needs of pharmacy veterans once they return to civilian life. It was pointed out that the rehabilitation of such veterans, as well as their reorientation into civil practice, would most likely be the responsibility of the United States Veterans Bureau. It was emphasized that the A. A. C. P. had committees at work preparing plans and programs designed to meet the educational needs of demobilized men and women interested in pharmacy in anticipation of full cooperation with local, State and Federal Agencies.

President Doerr requested information on the extent to which the colleges of pharmacy were now utilizing aptitude tests in the selection of applicants. This subject was discussed by several of the deans. Favorable results were reported and it was announced that the A. A. C. P. was continuing its committee work and activity on this subject.

It was the consensus of opinion of both groups that the betterment of pharmaceutical practice through a betterment of pharmaceutical education should be the objective of both agencies.

The group recessed at 1 o'clock from Foundation headquarters to the McGraw Hill Building directors room where luncheon was served and the discussion continued at the luncheon table until 5:40 P. M. when the meeting adjourned.

These minutes represent a summary of the discussion of the day as recorded in notes by Chairman Swain and Secretary Newcomb. With no stenographer present it obviously has been impossible to give a complete report on all of the thoughts and views expressed. For additional information on the discussion of this joint conference we refer to the report on the meeting by President Forest J. Goodrich of the A. A. C. P., pages 238-241, and also the report by editor Rufus A. Lyman, pages 242-245, both in the April, 1944, issue of the *American Journal of Pharmaceutical Education*.

E. L. Newcomb, Secretary

Program of the National Pharmacy Committee on Public Information, Inc.

Formal adoption of a ten-point program of objectives to carry pharmacy's case to the public was announced by the National Pharmacy Committee on Public Information. Paralleling the objectives, the Committee has approved a set of basic policies to guide activities in furtherance of the objectives.

Mr. E. Walton Bobst, chairman of the committee, states that, "These objectives and policies are intended to clarify the target and the procedures. They have been carefully considered, not only by the members

of the Committee, but also by men prominent in all phases of the industry, and today we are happy to announce that we have a united industry now moving forward together toward definite common goals to advance both pharmacy and the public's appreciation of it. These objectives and policies are the Magna Charta of pharmacy's public relations program. They capture the new spirit that aims for still greater goals for pharmacy's position in the American economy. Pharmacy is on the march with these goals before us and these policies to guide in their attainment."

The double ten-point program of objectives and policies are as follows:

OBJECTIVES

1. To further the public appreciation of the pharmacist's role in the maintenance of health, and his contribution to the well-being of the people.
2. To bring to the practicing pharmacist and pharmacy students greater realization of the importance and significance of the profession.
3. To provide opportunities for the individual pharmacist to participate in this program.
4. To assist in alleviating the shortage of pharmacists.
5. To assist the proper agencies in the civil reestablishment of pharmacists now serving in the armed forces, and to assure pharmacy's rightful place in any Federal or State government general education programs for the rehabilitation of servicemen and servicewomen.
6. To encourage enrollment in Colleges of Pharmacy in the post-war period in order that an adequate number of qualified men and women will be available to meet future professional needs.
7. To cooperate with State Boards of Pharmacy in standardizing as far as possible and in strengthening the state laws regulating licensing of pharmacists and the practice of pharmacy.
8. To publicize the availability of pharmacy scholarships and fellowships.
9. To cooperate with the Colleges of Pharmacy in publicizing their needs and presenting their services to the public.
10. To further a spirit of unity within the profession and the industry so that all may contribute more fully to the common good.

POLICIES

1. To approach the problems of pharmacy from the viewpoint of the practicing pharmacist.
2. To cooperate with associations—national, state and local.
3. To recognize the desirability of having individual pharmacists participate in the program.
4. To recognize that public goodwill toward pharmacy begins in the local community.
5. To recognize that the program requires activity at national, state and local levels.

6. To approach each problem practically rather than theoretically.
7. To have a program that is measurable in results.
8. To conduct a program that has a continuity of action and a sustained interest.
9. To follow the accepted principles of public relations.
10. To avoid taking action on controversial issues.

To take no part in any program which might afford an advantage to one element in pharmacy to the detriment of another element.

"We shall move forward methodically toward these goals, and will shortly release the first major action step in our nation-wide crusade in behalf of pharmacy."

The address of the committee is 620 Fifth Avenue, New York 20, N. Y.

American Foundation for Pharmaceutical Education

Resolution—on Minimum Requirements to be Observed for Pharmacy Foundation Scholarships—Approved by the Board of Grants of the A. F. P. E. May 17, 1944

Funds provided by the American Foundation for Pharmaceutical Education for undergraduate pharmacy scholarships shall be awarded by each college of pharmacy only to students to pursue the professional collegiate study of pharmacy who meet the following qualifications:

- (a) High school graduates *who are in need of financial aid and who have maintained a rank in the upper fifty percentile of their high school classes* as certified by the high school principal, or;
- (b) College students *who are in need of financial aid and who have established evidence of competency and scholarship ability* (maintaining an average of "C" as a minimum).

These scholarships shall be designated as **Pharmacy Foundation Scholarships**.

So that the methods of making and handling awards may be substantially uniform,

It is Recommended:

- 1—That each school to which funds are made available shall be solely responsible for the selection of the recipients of scholarships.

- 2—That the amount of the awards in any term or year shall be determined, within the limitations of the funds provided, by each school.
- 3—That all funds shall be deposited with the cashier or appropriate officer of the school.

It is Required:

- 1—That names of the recipients shall be filed with the Secretary of the Foundation, together with a minute of the qualifications on which the choice was made, on forms provided by the Foundation.
- 2—That each college of pharmacy shall report to the Foundation the grades earned by each Pharmacy Foundation Scholarship student at the end of each semester or quarter, on Forms provided by the Foundation. This report shall be continuing for the period that the scholarship is in effect and shall cover all subjects taken by the student.
- 3—That the use of Pharmacy Foundation Scholarship funds be primarily restricted to legitimate educational expense, i. e., tuition, laboratory fees and required books or other expense directly incident to the college or school of pharmacy requirements.

A second award of \$400.00 is now made available by the Foundation for each of the schools of pharmacy holding membership in the A. A. C. P. or accredited by the American Council on Pharmaceutical Education.

New York
June 9, 1944

E. L. NEWCOMB,
Secretary

The J. Brodie Smith Scholarship Fund

Out of the ever aggressive and progressive office of the secretary of the New Hampshire Pharmaceutical Association comes this message:

"Enclosed with this mailing is the talk of Commissioner Callaghan on some of the post-war problems of licensure. Read it. While the present condition of shortage of registered pharmacists seems to blot out all other problems, it is well to know that the war is not to blame for all the troubles. Member-store owners have grown older and, with few exceptions, have not brought into their firms the youth necessary to succeed the present owners. I realize how difficult this is to accomplish, but what other business firm would proceed on the same basis and not have youngsters coming along to take over in sickness, retirement or death?

"This problem is acute. We do not have in our state sufficient youth to take over, even if we were to reach out for them now, and we will not have for the duration. However, if we are to proceed on a program to correct this situation, we must inaugurate an educational program for eligible young men, send them to college with our assistance where necessary, and assume our part as individuals in this program to pro-

vide recruits to take over our stores when we so desire. With two sons myself now through college, I realize what that costs. A minimum of fifty dollars per month for board and room for each student. Therefore I am sure you will agree that every member-store, to relieve this condition, should contribute a minimum of two months' board and room bill for one young man. If we do that, all of us, we shall have begun the program to ease a post-war situation now out of hand.

"Funds from other sources will augment this student loan fund; the Veteran Education Program will help; the National Foundation for Pharmaceutical Education will bring to each college of pharmacy a few scholarships; but to be of any help in New Hampshire we shall have to set up our own rotating fund. This was voted at the February meeting, and thirty-four member-stores signed the pledges to forward the two months' board and room bill for one boy. The fund was named for our oldest Association member, life member J. Brodie Smith, and a Board of Trustees was named to handle the fund, which will loan money to eligible young men on proper security.

"The applicant must return each summer to work in a member-store, at prevailing wages, and must serve for one year after his college training an internship in a member-store, at prevailing wages.

"The fund is off to a good start; the time is opportune to begin the planning; business earnings are sufficient to allow all member-stores to make this contribution to their own future security; and the contribution is deductible from returns as a contribution to an educational fund. A pledge blank is attached to this letter, and as you see, the sum may be sent in installments, if desired. We have provided the program, set up the machinery to make it work as soon as the fund is of sufficient size and students are available, and have endowed it with men of ability to carry out its intent, so all that is now left is for you to do your part."

If every state association had the New Hampshire spirit and vision, what a boon it would be to pharmacy!

The Minnesota Plan

At the meeting of District No. 5 at Aberdeen, South Dakota, one of the questions that provoked discussion had to do with the improvement of the practical experience required for licensure. It was pointed out that the educational value of practical experience might be greatly increased if preceptors could be made to realize that they are a part of the pharmaceutical educational system and as such they have certain obligations and responsibilities to the student and to the profession.

Dean Charles H. Rogers of the University of Minnesota and Secretary Frank W. Moudry of the Minnesota Board immediately worked out

a plan to serve as a basis of experimentation in that state. The first step was to obtain a list of druggists in the state that would be willing to act as preceptors for those students who must meet the practical experience requirement. To do this the following form was sent to the druggists of the state to be filled in and returned to the university by those who wished to cooperate:

1. Name of proprietor or manager:
 2. Pharmacist's license No.
 3. Location of pharmacy: street
City or town
 4. Training and experience:
 5. Preference as to man or woman apprentice: Man..... Woman.....
 6. When you would employ apprentice: Summer vacations.....
After graduation.....
 7. Statement of willingness to devote some time to the instruction of apprentice
- Date
- Signature

To those who accept the responsibility of preceptorship the Board of Pharmacy, in the spirit of being helpful, makes the following suggestions as to the nature of the instruction to be given in the stores:

1. Re-emphasize again and again the necessity for personal cleanliness, neatness of appearance, and dignified, courteous, professional conduct. These will inspire professional respect and confidence on the part of the layman and physician alike.

2. Teach them professional approach. When properly exercised, it is a valuable asset regardless of whether you are selling a clinical thermometer, receiving or delivering a prescription, or selling a box of candy.

3. Give them an opportunity to watch your technique both in and out of the prescription department.

4. Let them learn how you disseminate personal and public health information.

5. Teach them any special techniques required for the successful operation of each department in your pharmacy.

6. Invite them to help you in the manufacture and sale of pharmaceuticals and assist you in compounding prescriptions.

7. Your accounting system and keeping of records may be different from that which they studied in college. Explain it to them.

8. Show them how to use your want-book and teach them how to order and check invoices.

9. Teach them how to courteously answer the telephone. If done properly, it has made many loyal customers.

10. Encourage them to read your current professional, scientific, and trade journals. Check up by asking them questions about certain articles. Also, encourage them to become members of your local, state, and national pharmaceutical organizations when they are eligible.

11. Take them along when detailing your physicians and dentists. Introduce them to your doctors and let them see how you have gained their confidence and respect.

12. Above all, make it your business to see that your charge *learns something every day*. That is the major responsibility of a preceptor.

This experiment will be followed with interest. We believe it has great possibilities. The University of Minnesota and the Minnesota State Board of Pharmacy are again, as usual, in the vanguard of educational progress.

RUFUS A. LYMAN

The First Wisconsin State Board of Pharmacy is a title of a play written by Dr. George Urdang of the American Institute of the History of Pharmacy and performed by the present members of the Wisconsin State Board of Pharmacy in commemoration of the sixtieth anniversary of the organization of the first pharmacy board. The play has been printed in pamphlet form which is illustrated with photographs of the members of the first and the present boards and the cast and production staff of the play. From a foreword by Secretary S. H. Dretzka we quote the following:

"The value and the real meaning of an anniversary does not lie in the mere fact that a certain number of years have passed since the happening of the event concerned, since the birth or the death of an individual or an institution.

"It derives its importance and dignity from our, the present generation's capacity to fully understand what these happenings of the past have meant in their time as well as for our time, to grasp their lasting momentum and to present it to the world of today.

"An anniversary is worth celebrating only if there is a forceful message to convey and if this message can be brought to the people concerned in an inspiring way.

"How shall the world, within pharmacy and without, know about the ideals pharmacy is to serve, if we do not use any opportunity to present them?"

There can be no finer pharmaceutical educational propaganda before the public than this sort of effort. But what is even more important is the effect it has upon ourselves in presenting in a historical and dignified way the story of our objectives and our accomplishments.

1944 Special National Pharmacy Week Contest for Students

The author of the winning essay will receive a \$25.00 War Bond and it is planned to publish it in the Pharmacy Week issue of the Practical Pharmacy Edition of the A. Ph. A. Journal.

In order to carry out the judging and have the winning essay available for use by publication date, it is necessary to start the contest immediately and to make the closing date August 15, 1944.

RULES

(1)—Essays shall be on the subject, "How to Improve the Professional Status of Pharmacy," and shall not exceed 2000 words in length.

(2)—Entries shall be typed double space on one side of paper only and shall carry the name of the author and the name of School or College in which the author is a student.

(3)—Entries shall be accompanied by a statement from the Dean or other designated faculty member that it is the official entry from the School or College.

(4)—Only one entry will be accepted from a School or College and only when such entry is made in compliance with Rule (3).

(5)—Entries shall be mailed to the Chairman of the National Pharmacy Week Committee and must be postmarked before 12:00 P. M., August 15, 1944, to be eligible in the national contest.

(6)—All essays entered become the property of the National Pharmacy Week Committee.

(7)—Essays will be judged upon the following basis: (a) Practicability and usability of ideas suggested; (b) Originality; (c) Clarity of thought and expression; (d) Composition.

National Pharmacy Week Committee
Chas. R. Bohrer, Chairman

NEW BOOKS

An Outline of General Physiology, by L. V. Heilbrunn, Ph. D., Professor of Zoology in the University of Pennsylvania. Second Edition, Revised. 1943. 748 pp.; 135 illustrations. W. B. Saunders Company, Philadelphia, Pennsylvania. Price \$5.

Professor Heilbrunn has produced a text which is today the outstanding one in the field of General Physiology and in the more specialized field of cellular Physiology. The new edition has been thoroughly revised and the result of recent (as well as older) investigations are included. It contains such new information as the relation of vitamins to oxidative processes and the localization of enzymes within various parts of the cell.

Discussion in most cases begins with the fundamental processes of the cell, and leads up to the processes of tissues and organs.

The organization and style is such that one need not be directly concerned with general and cellular physiology to become intensely interested in the presentation of facts and interpretation as produced by the author.

D. M. P.

The American Illustrated Medical Dictionary, by W. A. Newman Dorland, A. M., M. D., F. A. C. S., Lieut.-Colonel, M. R. C., U. S. Army; member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association; editor of "American Pocket Medical Dictionary," with the collaboration of E. C. L. Miller, M. D., Medical College of Virginia. Twentieth Edition. 1944. 1668 pages, 885 illustrations, 240 portraits. W. B. Saunders Company. Price, plain \$7.00. Thumb-indexed, \$7.50.

A dictionary which has run through twenty editions has become standard. The whole field of the medical and the basic medical sciences is covered and the reviewer has not yet been able to find a new term in recent medical literature that is not defined in this revision which is a good test of its completeness. The text is rewritten whenever new material or additional material has made it desirable. The material has been arranged in groups so it is easy for the busy student or practitioner to locate the subject he is looking for quickly. For example, all tests are under tests, all stains and staining methods under stains and all treatments under treatment. The derivation of words and the pronunciations of words is made especially clear and the latter is of the greatest importance in the case of the newer words that have come into use since the publication of earlier editions. In the revision the ablest medical authorities have been consulted and have collaborated. The mechanical makeup of the book is as commendable as its contents.

R. A. L.

MARRIAGES

Thomas J. Haley, University of Florida, School of Pharmacy, and Edna R. Baker of West Palm Beach, Florida, on June 1, 1944, at West Palm Beach.

Albert J. Sica, Fordham University, College of Pharmacy, and Angelina Belloise of New York, on July 1, 1944, in New York.

NEW IN THE FAMILY

Mary Jane Spencer.—Born June 28, 1944, daughter of Mr. and Mrs. Edward Spencer of Cleveland, Ohio, granddaughter of Prof. and Mrs. D. H. Spencer, University of Kansas, School of Pharmacy.

INSTITUTIONS HOLDING MEMBERSHIP IN THE AMERICAN ASSOCIATION OF COLLEGE OF PHARMACY

University of Nebraska, College of Pharmacy, Lincoln. Rufus A. Lyman, Dean (1913)

NEW JERSEY

Rutgers University, The State University of New Jersey, New Jersey College of Pharmacy, Newark. Ernest Little, Dean (1921)

NEW YORK

University of Buffalo, School of Pharmacy, Buffalo. A. B. Leming, Dean (1926)

Columbia University, College of Pharmacy of the City of New York, New York. Charles W. Ballard, Dean (1929)

Fordham University, College of Pharmacy, New York. Charles J. Deane, Acting Dean (1930) (Charles J. Deane)

Long Island University, Brooklyn College of Pharmacy, Brooklyn. Hugo M. Schaefer, Dean (1929)

NORTH CAROLINA

University of North Carolina, School of Pharmacy, Chapel Hill. J. Groves Beard, Dean (1917)

NORTH DAKOTA

North Dakota Agricultural College, School of Pharmacy, Fargo. William F. Suden, Dean (1922)

OHIO

Ohio Northern University, College of Pharmacy, Ada. Rudolph H. Reade, Dean (1925)

Ohio State University, College of Pharmacy, Columbus. Bernard V. Cheney, Dean (1926)

University of Toledo, College of Pharmacy, Toledo. George L. Fisher, Dean (1921)

Western Reserve University, School of Pharmacy, Cleveland. Franklin J. Bacon, Dean (1925)

OKLAHOMA

University of Oklahoma, School of Pharmacy, Norman. David B. E. Johnson, Dean (1925)

OREGON

Oregon State College, School of Pharmacy, Corvallis. Adolph Eloff, Dean (1916)

PENNSYLVANIA

Duquesne University, School of Pharmacy, Pittsburgh. Hugh C. Mulligan, Dean (1927)

Philadelphia College of Pharmacy and Science, Philadelphia. Iver Griffith, Dean (1929)

Temple University, School of Pharmacy, Philadelphia. H. Evert Lending, Dean (1925)

University of Pittsburgh, Pittsburgh College of Pharmacy, Pittsburgh. G. Stanford O'Connell, Dean (1928)

Puerto Rico

University of the Philippines, College of Pharmacy, Manila. Mariano V. del Rosario, Dean (1917)

Puerto Rico

University of Puerto Rico, College of Pharmacy, Rio Piedras. Luis Torrendo, Dean (1925)

Rhode Island

Rhode Island College of Pharmacy and Allied Sciences, Providence. W. Henry Alward, Dean (1924)

SOUTH CAROLINA

Medical College of the State of South Carolina, Charleston. William A. Frost, Director (1926)

University of South Carolina, School of Pharmacy, Columbia. Emory F. Motley, Dean (1925)

SOUTH DAKOTA

South Dakota State College, Division of Pharmacy, Brookings. Floyd J. LeBlanc, Dean (1928)

TENNESSEE

University of Tennessee, School of Pharmacy, Memphis. Robert L. Crowe, Dean (1914)

TEXAS

University of Texas, College of Pharmacy, Austin. William F. Gilkey, Dean (1916)

VIRGINIA

Medical College of Virginia, School of Pharmacy, Richmond. Worley. F. Ridd, Dean (1922)

WASHINGTON

State College of Washington, School of Pharmacy, Pullman. Paul H. Hopkins, Dean (1912)

University of Washington, College of Pharmacy, Seattle. Forest J. Gould, Dean (1925)

WEST VIRGINIA

West Virginia University, College of Pharmacy, Morgantown. J. Lester Herman, Director (1922)

WISCONSIN

University of Wisconsin, School of Pharmacy, Madison. Arthur H. Uhl, Director (1926)

